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26-19963.62-09

SCANNED BY
PLANNING

CONSTRUCTION PLANS FOR EL MESQUITE MARKET ROADWAY IMPROVEMENTS

ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
MARCH 2007

FW

INDEX TO DRAWINGS

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PAVING SECTIONS
7. MASTER UTILITY PLAN
8. CENTRAL AVE SAS AND WATERLINE
PLAN AND PROFILE
9. STORM DRAINAGE IMPROVEMENTS
10. SIGNALIZATION PLAN

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction with survey information provided by DAVID VIGIL AMPS # 811



APPROVED AS RECORD DRAWINGS
DESIGN REVIEW SECTION
CITY CONSTRUCTION ENGINEER
Paul Olson
DATE: 02-06-2007

DRB # 1004354

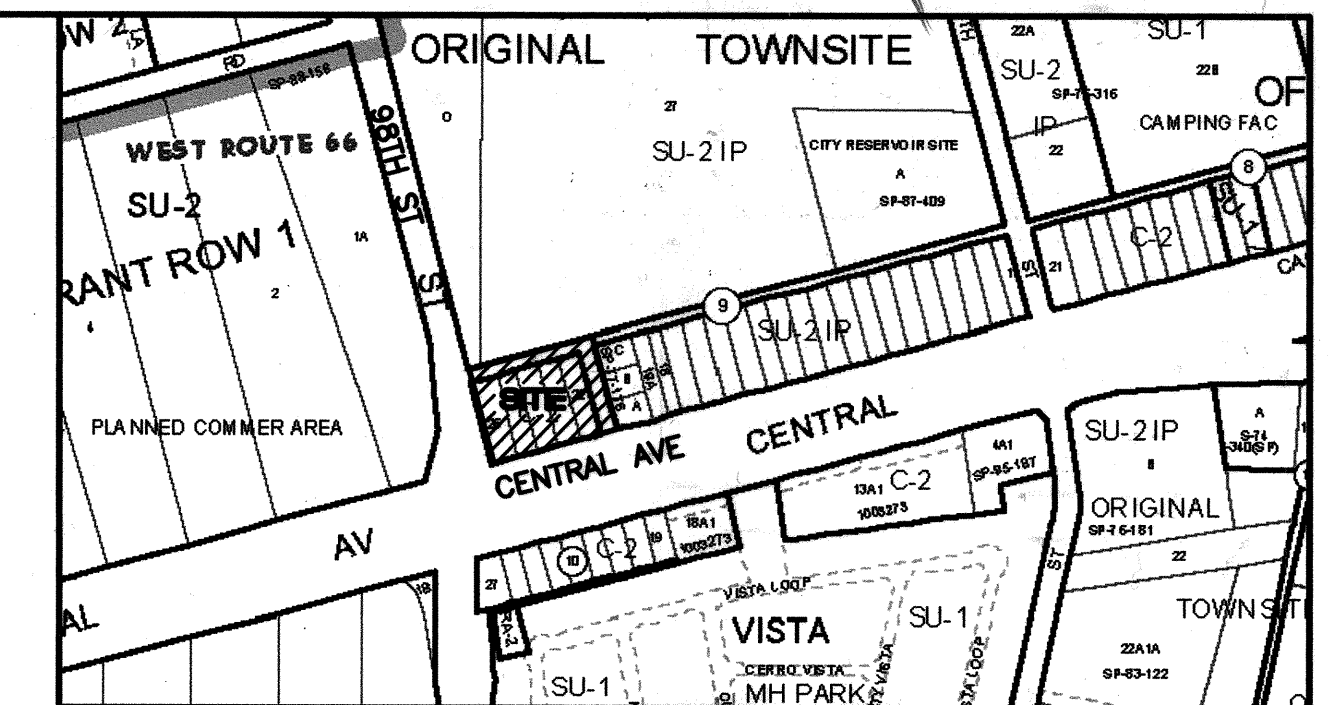
TIERRA WEST, LLC
8509 JEFFERSON NE
ALBUQUERQUE, NEW MEXICO 87113
(505)858-3100

☒ ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.	
☒ BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.	
☒ TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE PROJECT ENGINEER.	
☒ SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.	
☒ IF CURB IS DEPRESSIONED FOR A DRIVEPAD, THE DRIVEPAD SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF CURB AND GUTTER.	
☒ ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.	

REV	SHEETS	CITY ENGINEER	DATE	USER	DEPT.	DATE	USER	DEPT.	DATE
ENGINEERS STAMP & SIGNATURE	APPROVALS	ENGINEER	DATE	APPROVED FOR CONSTRUCTION					
	DRC Chairman	<i>Woodell</i>	7/16/07	<i>Paul Olson</i> 7-18-07 City Engineer Date					
	Transportation	<i>W</i>	4/3/07						
	Water/Wastewater	<i>William G. Boyle</i>	3/13/07						
	Hydrology	<i>Bradley A. Bingham</i>	3/12/07						
	AMAFCA								
Constr. Mngmt.									
Constr. Coord.									
CITY PROJECT NO.				SHEET					
790382				1 OF 10					

RECORD DRAWING

ALL SAS PIPE SDR-35
ALL PVC WATER PIPE C-900



VICINITY MAP K-9

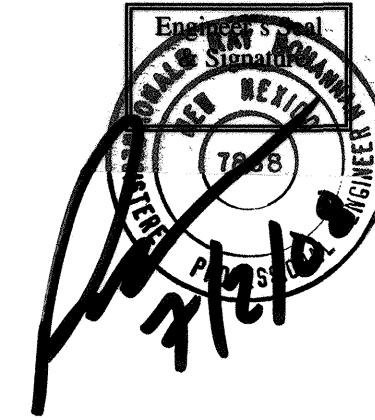
NOTICE TO CONTRACTORS SCALE NONE

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION (UPDATE #7)
2. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (280-1990) FOR LOCATION OF EXISTING UTILITIES.
3. ANY WORK AFFECTING AN ARTERIAL ROADWAY REQUIRES 24-HOUR CONSTRUCTION.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OR SURVEYOR IMMEDIATELY SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. SEVEN (7) WORKING DAYS PRIOR TO BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT TO CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO(2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONST. COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY BARRICADE ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. REFER TO STANDARD SPECIFICATIONS.
6. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPLACED WITH PLASTIC REFLECTORIZED PAVEMENT MARKINGS BY THE CONTRACTOR TO LOCATION AS EXISTING OR AS INDICATED BY THIS PLAN SET.
7. CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE ENGINEER MAY TAKE NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE ENGINEER AND SHALL NOTIFY THE ENGINEER AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS. ANY PERMANENT SURVEY MONUMENT LOCATED WITHIN 50' OF THIS PROJECT THAT IS NOT SHOWN ON THE PLAN AND IS DESTROYED DURING CONSTRUCTION WILL BE REPLACED AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
9. FOR STORM DRAIN CONSTRUCTION, RCP PIPE JOINTS SHALL NOT BE GROUTED PRIOR TO FINAL INSPECTION. FINAL INSPECTION WILL DETERMINE JOINTS TO BE GROUTED FOR FINAL ACCEPTANCE OF THE CONSTRUCTION.
10. THE WATER SYSTEMS DIVISION (857-8200) WILL BE NOTIFIED BY THE CONTRACTOR SEVEN (7) WORKING DAYS IN ADVANCE OF ANY WORK WHICH MAY AFFECT THE EXISTING PUBLIC WATER FACILITIES. REFER TO SECTION 18 OF THE STANDARD SPECIFICATIONS.
11. ALL EXCAVATION, TRENCHING, AND SHORING ACTIVITIES MUST BE CARRIED OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
12. ELECTRONIC MARKER DISKS (EMD) WILL BE PLACED ACCORDING TO SECTION 170 OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #7.
13. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNING UNTIL PROJECT HAS BEEN ACCEPTED BY COA.

THE FOLLOWING NOTES ALSO APPLY WHEN CHECKED

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction with survey information provided by DAVID VIGIL NA 12/28/07

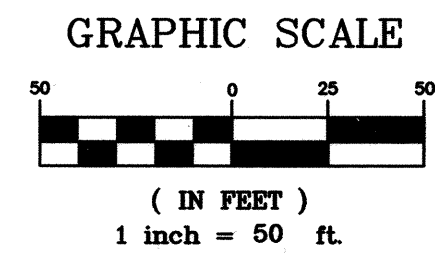
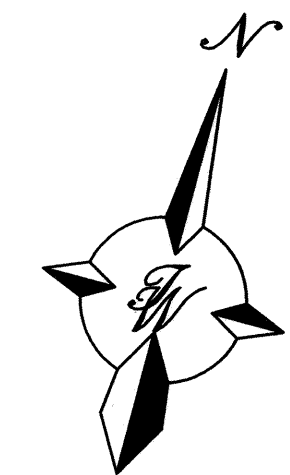


KEYED NOTES:

- A. REMOVE EXISTING CURB AND GUTTER
B. REMOVE AND DISPOSE EXIST LIGHT POLE BASE
C. REMOVE AND DISPOSE EXISTING CONCRETE SIDEWALK

LEGEND:

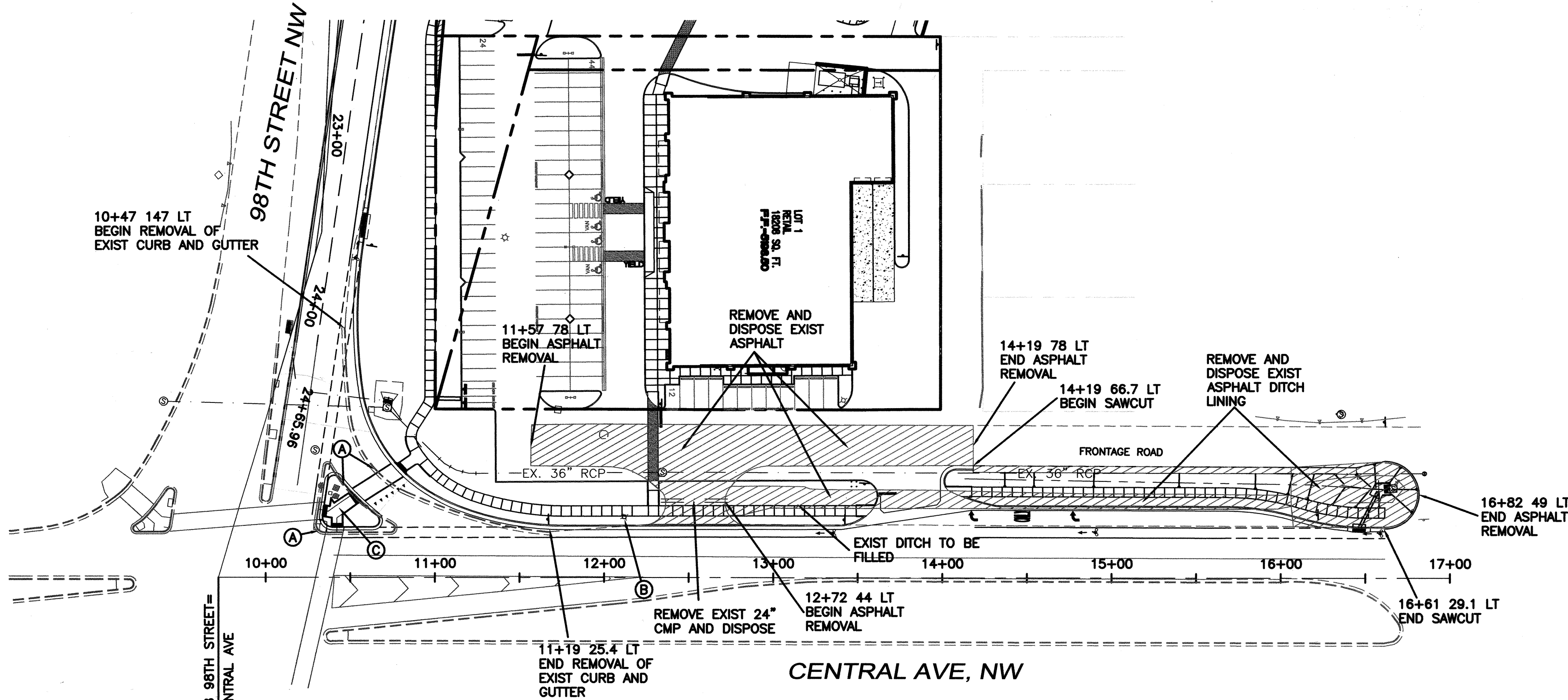
- ===== EXISTING CURB & GUTTER
===== PROPOSED CURB & GUTTER
----- BOUNDARY LINE
----- EXISTING BOUNDARY LINE
----- EASEMENT
===== PROPOSED SIDEWALK
----- CENTERLINE
----- RIGHT-OF-WAY
----- 4" DASHED WHITE LINE
----- 4" SOLID WHITE STRIPE
----- 4" DOTTED LINE
===== ASPHALT REMOVAL



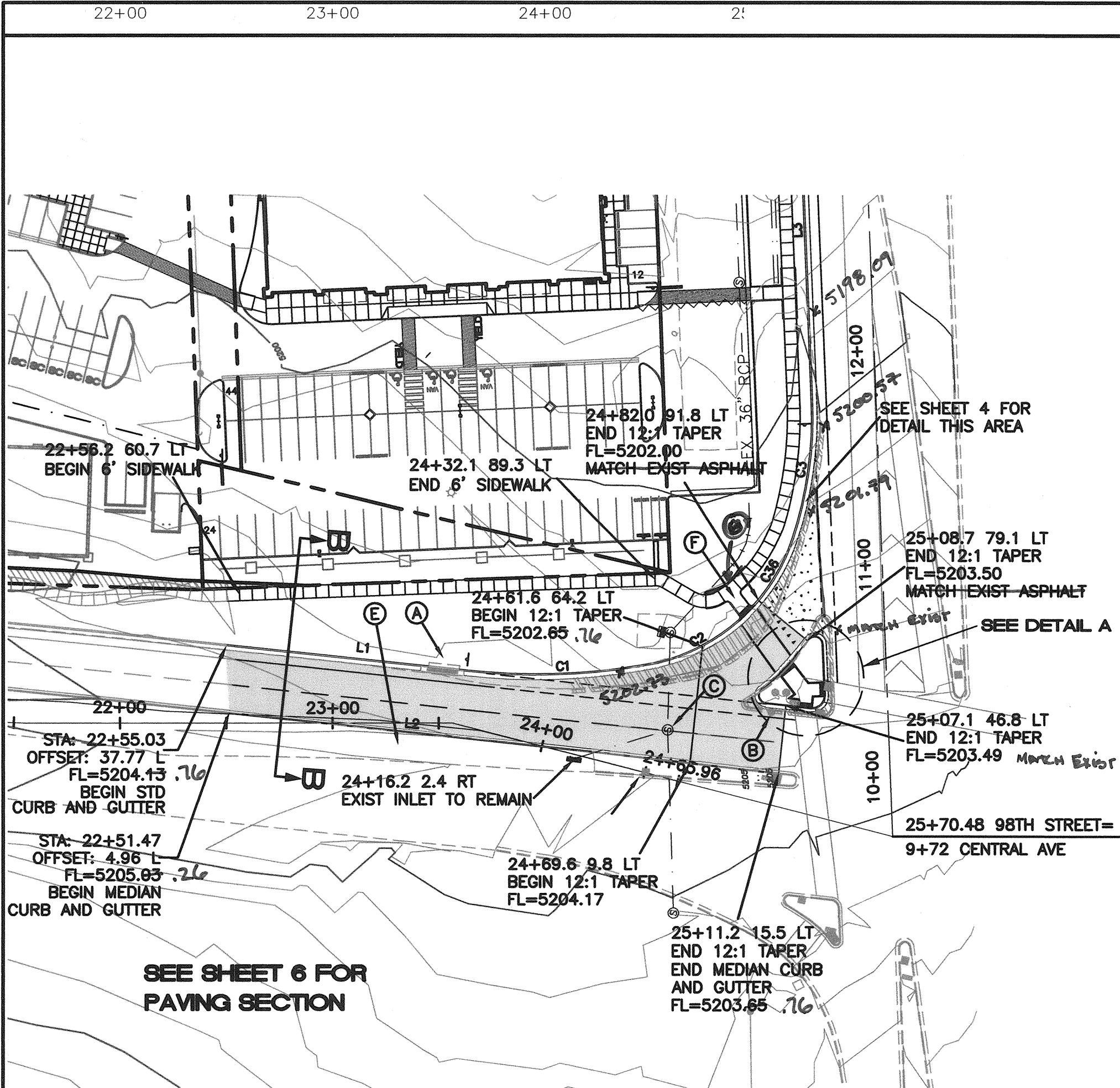
TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100

RECORD DRAWING

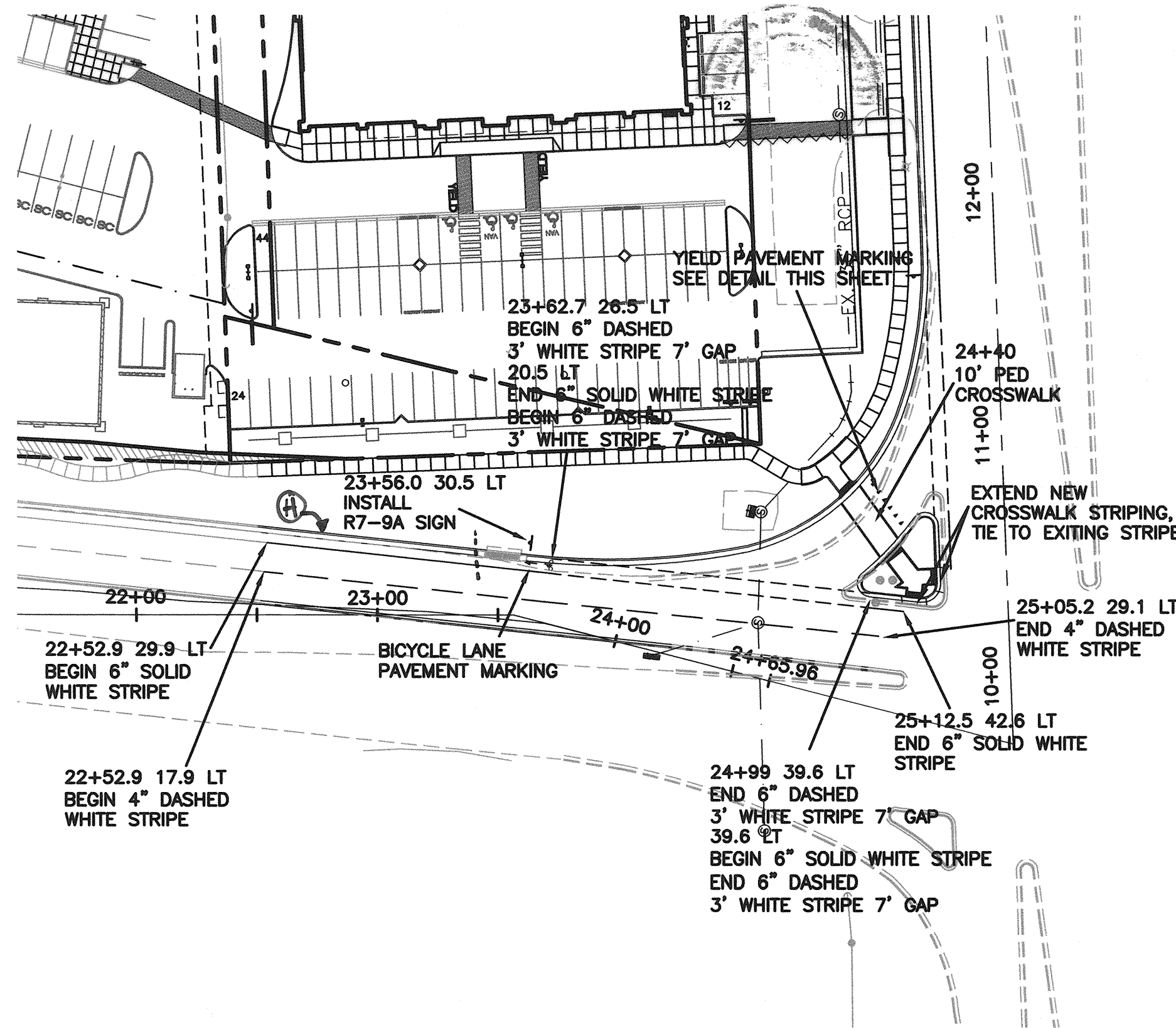
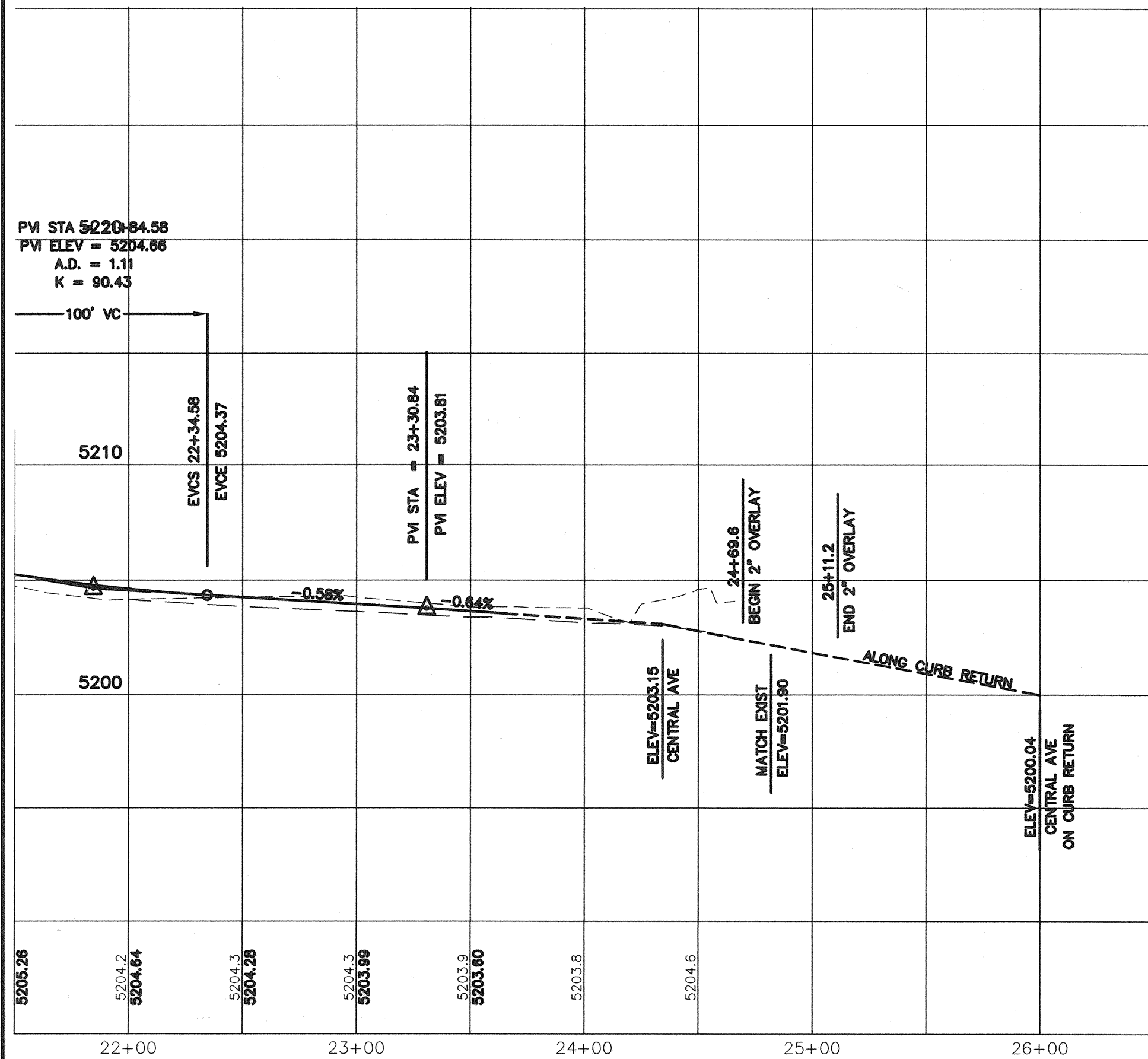
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: CENTRAL AVE NW AND 98TH ST NW DEMOLITION PLAN	
DESIGN REVIEW COMMITTEE APPROVE JUL 10 2007 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL APPROVE JUL 18 2007 CITY ENGINEER
CITY PROJECT NO. 790382	ZONE MAP NO. K-9
SHEET 3 OF 10	



AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	CHAVIA TRUCKING	ACS 7-KTO	STANDARD A.C.S. BRASS TABLET	DATE	BY	DATE	BY
WORK	DAVID VIGIL	NM STATE PLANE COORDINATES	(CENTRAL ZONE-N.A.D. 1927)				
INSPECTOR'S	CONTRERIA WEST DATE 200708	VERIFICATION BY	CONTRERIA WEST DATE 200708				
ACCEPTANCE BY	CONTRERIA WEST DATE 200708	VERIFICATION BY	CONTRERIA WEST DATE 200708				
DRAWINGS	TIERRA WEST DATE 200708						
CORRECTED BY	TIERRA WEST DATE 200708						
MICRO-FILM INFORMATION							
RECORDED BY	NO.						
DATE							



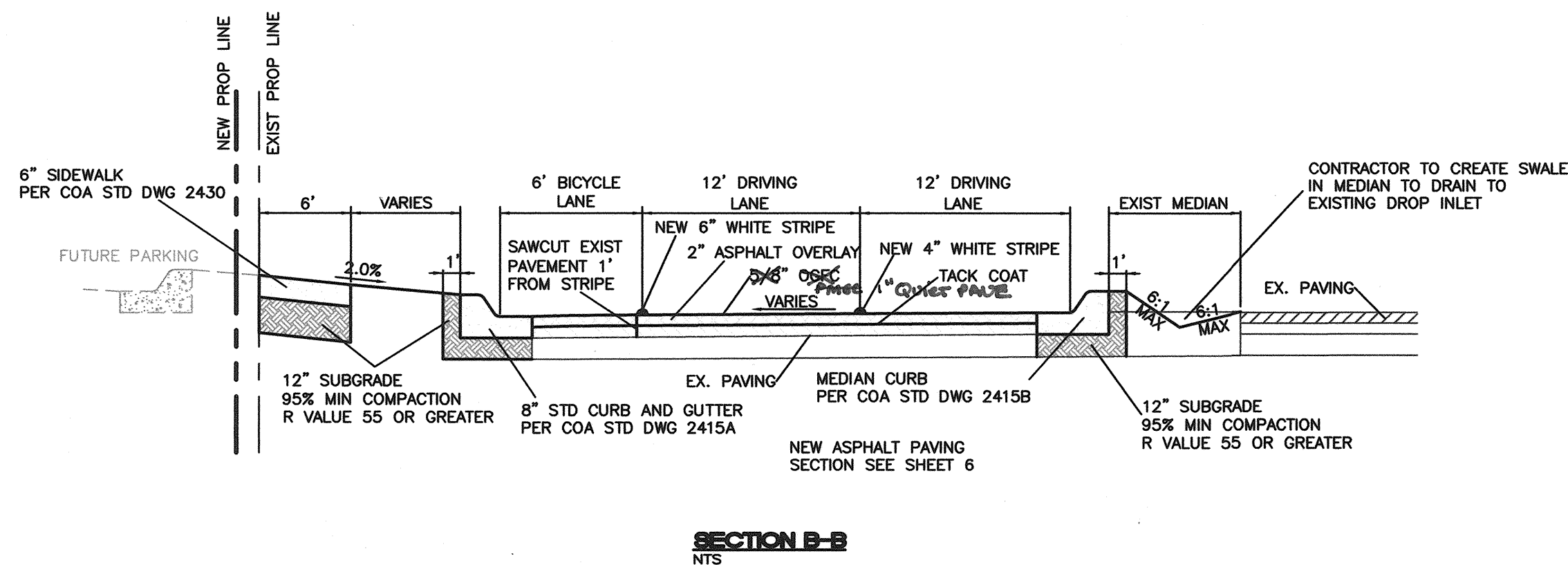
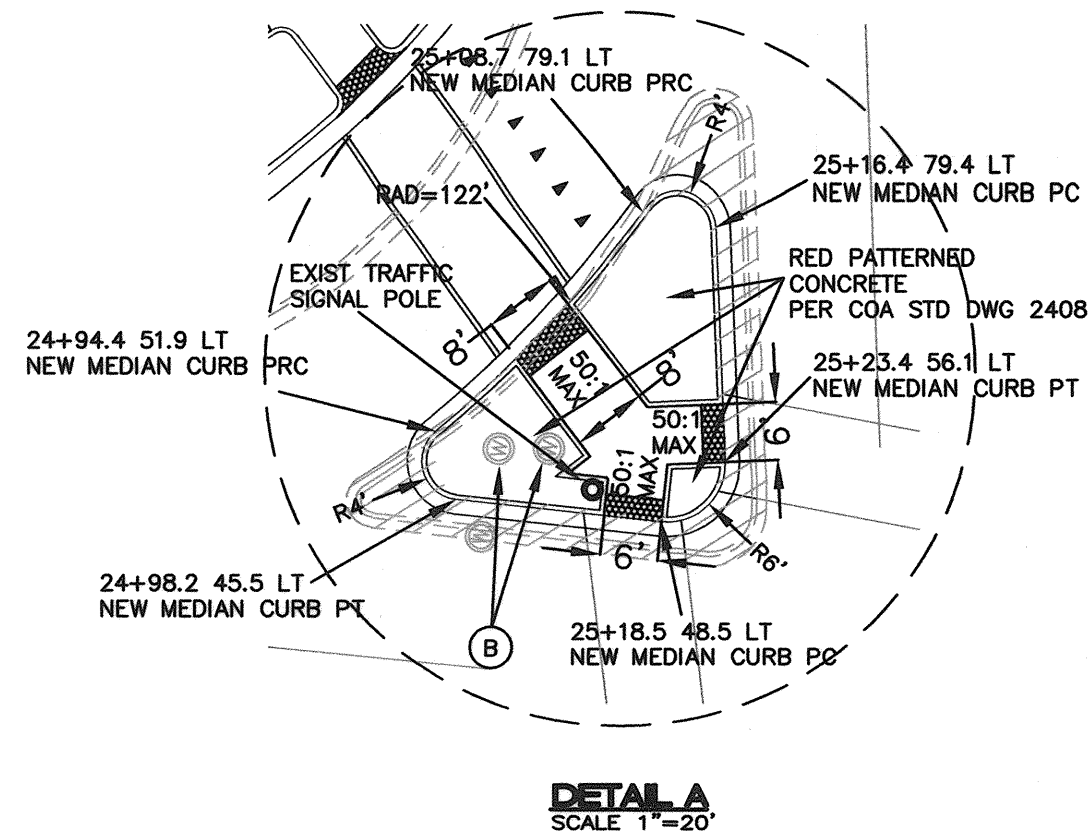
98TH STREET, NW
PAVING IMPROVEMENTS



98TH STREET, NW
STRIPING AND SIGNAGE

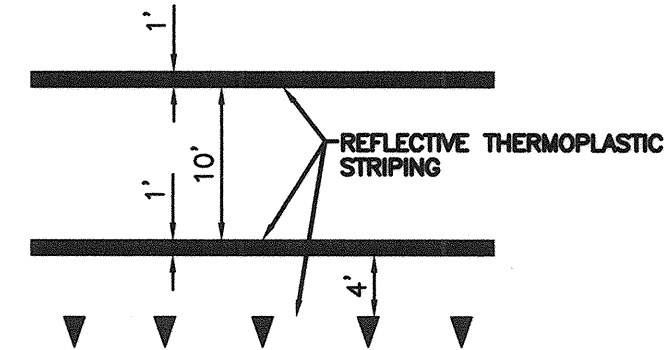
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KEYED NOTES:

- DOUBLE C INLET AND STORM DRAIN TO BE BUILT UNDER SEPARATE WORK ORDER
- ADJUST EXISTING WATER VALVE TO GRADE
- ADJUST EXISTING MANHOLE TO GRADE
- LIGHT POLE LOCATION ALONG 98TH STREET TO BE COORDINATED WITH THE CITY OF ALBUQUERQUE
- REGRADE EXISTING SWALE TO DRAIN TOWARDS INLET
- HANDICAP RAMP PER DETAIL SHEET 6
- PEDESTRIAN RAILING
- BEH 980 PENETRATING SEALANT
Applied STA 20+62 TO 23+51



ALL PAVEMENT MARKINGS SHALL CONFORM TO M.U.T.C.D. SPECS (LATEST EDITION)

CROSSWALK DETAIL

SIGN KEY:



* SIGN FACES SHOWN FOR REFERENCE; CONTRACTOR SHALL VERIFY DIRECTION OF ARROW TO CORRELATE WITH INSTALLATION LOCATION AND TRAFFIC MOVEMENTS.

** CONTRACTOR SHALL COORDINATE WITH TRAFFIC OPERATIONS PRIOR SIGNING AND STRIPING

LEGEND:

- EXISTING CURB & GUTTER
- PROPOSED CURB & GUTTER
- BOUNDARY LINE
- EXISTING BOUNDARY LINE
- EASEMENT
- PROPOSED SIDEWALK
- CENTERLINE
- RIGHT-OF-WAY
- 4" DASHED WHITE LINE
- 4" SOLID WHITE STRIPE
- 4" DOTTED LINE
- ROW DEDICATION
- ASPHALT REMOVAL
- LIMITS OF OVERLAY
- NEW PAVING

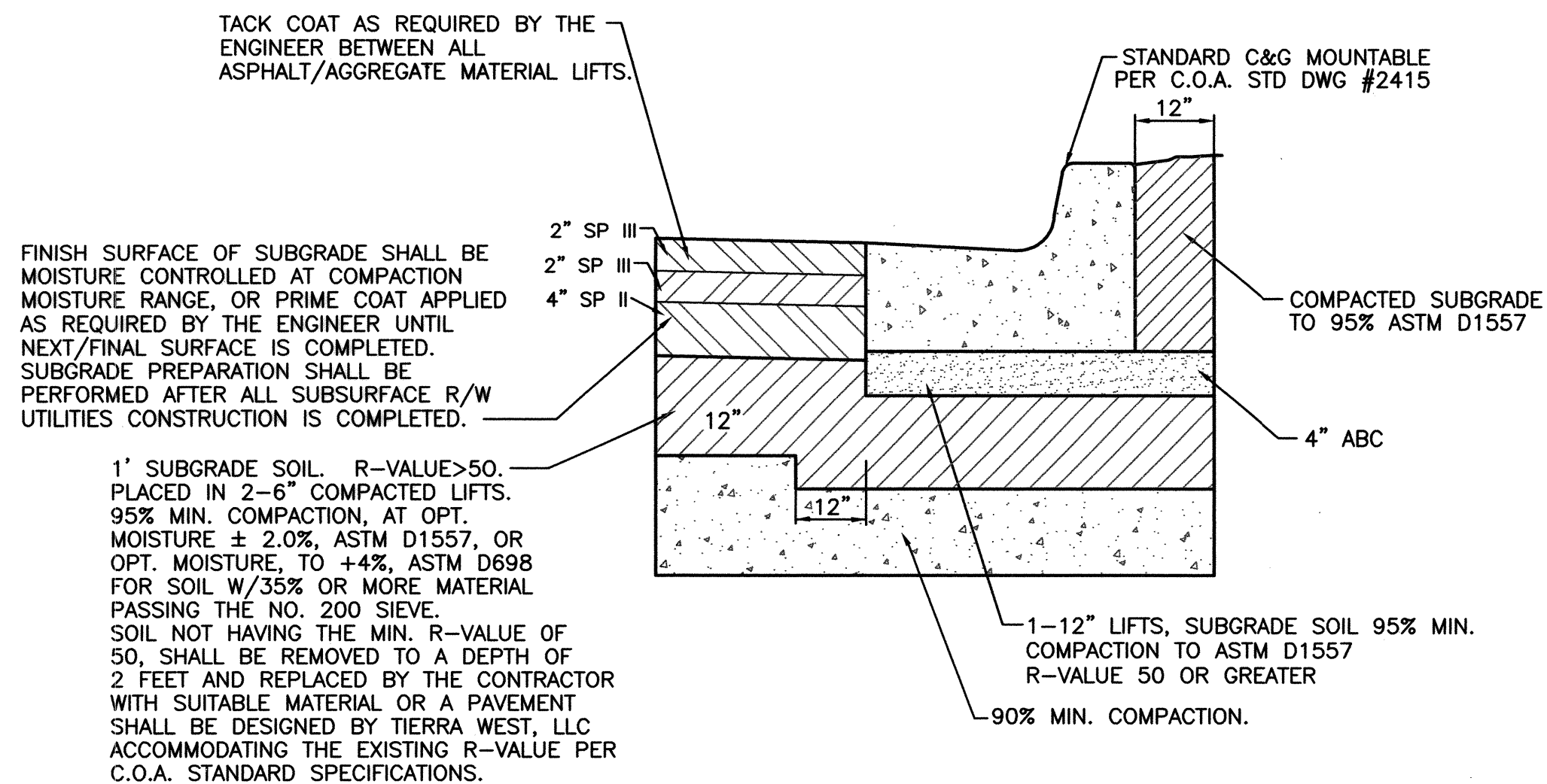
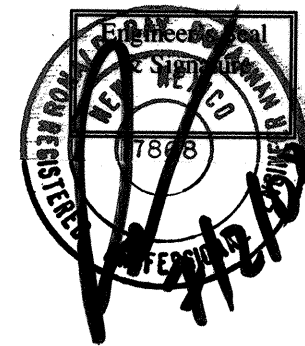
SCALE: HORIZ. 1"=50'
VERT. 1"=5'

TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: 98TH STREET, NW PAVING IMPROVEMENTS	
DESIGN REVIEW COMMITTEE APPROVED JUL 10 2007 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL JUL 10 2007 CITY ENGINEER
CITY PROJECT NO. 790382	ZONE MAP NO. K-9
SHEET 5 OF 10	

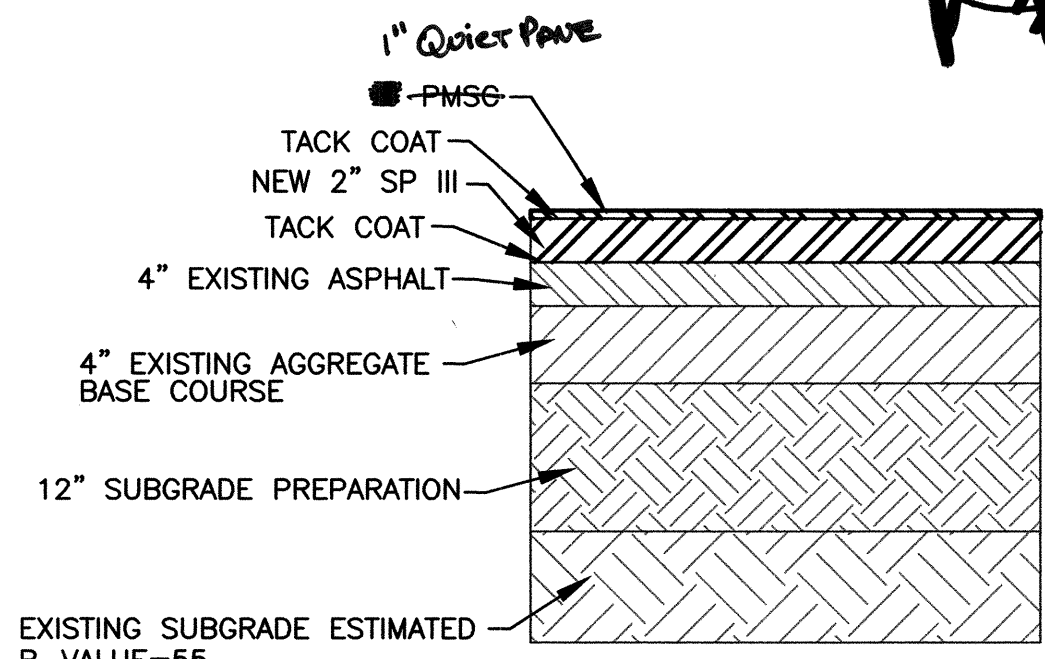
AS BUILT INFORMATION	
CONTRACTOR CHAVIA TRUCKING	DATE 2/20/08
WORK DAVID VEBIL	DATE 2/20/08
INSPECTOR COATERRA WEST DATE 2/20/08	DATE 2/20/08
ACCEPTANCE BY COATERRA WEST DATE 2/20/08	DATE 2/20/08
REVISIONS DRAWING NO. 2566-SH05-98TH-PV.DWG	DATE 3-12-07
DESIGNED BY: SA	DATE: 3-12-07
DRAWN BY: PM	DATE: 3-12-07
CHECKED BY: RB	DATE: 3-12-07

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

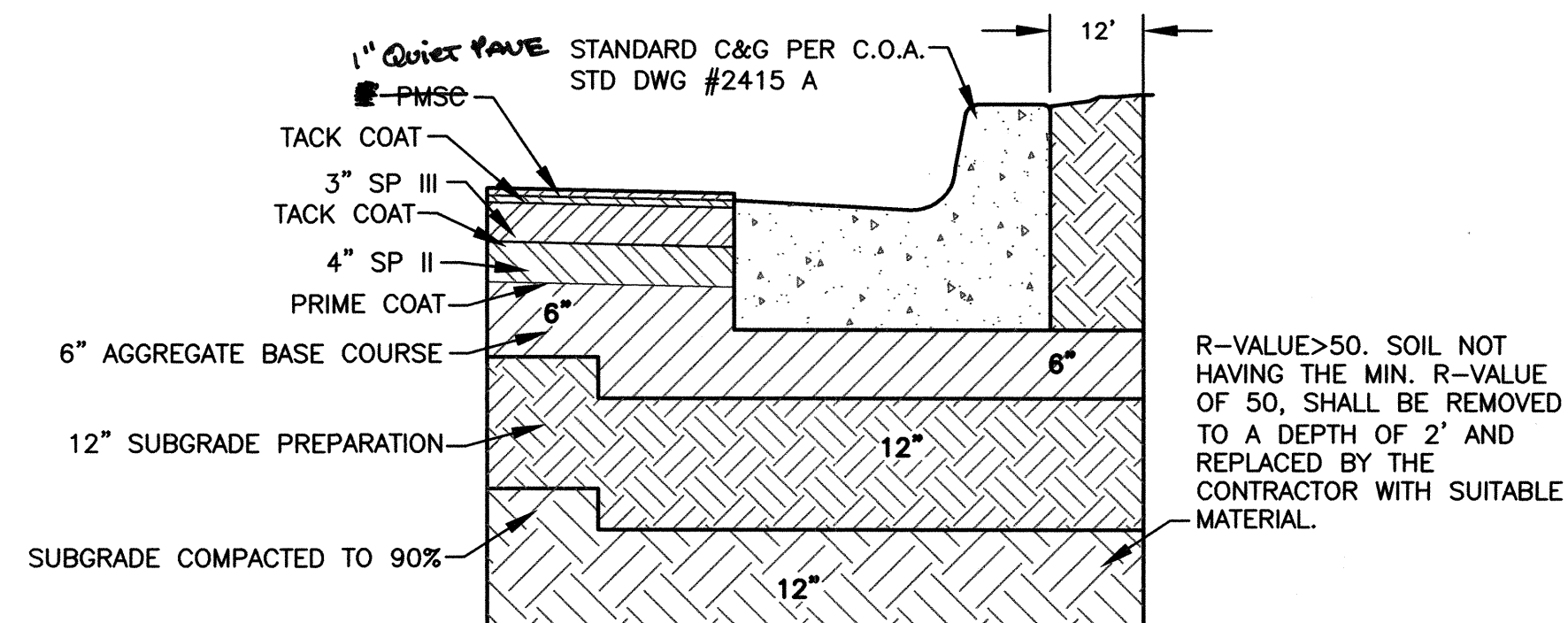
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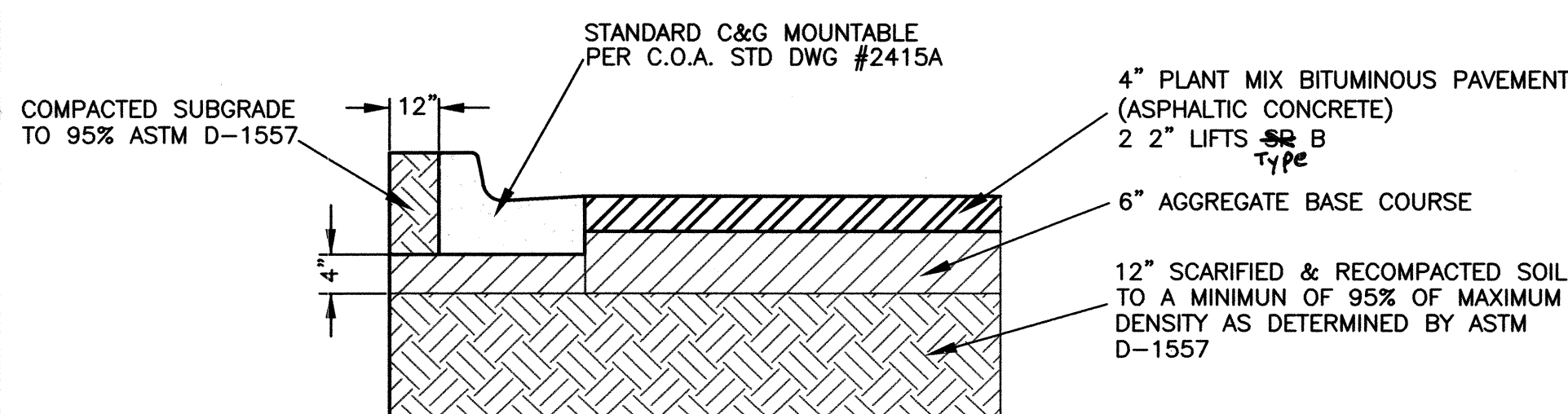
CENTRAL PAVING SECTION
NTS



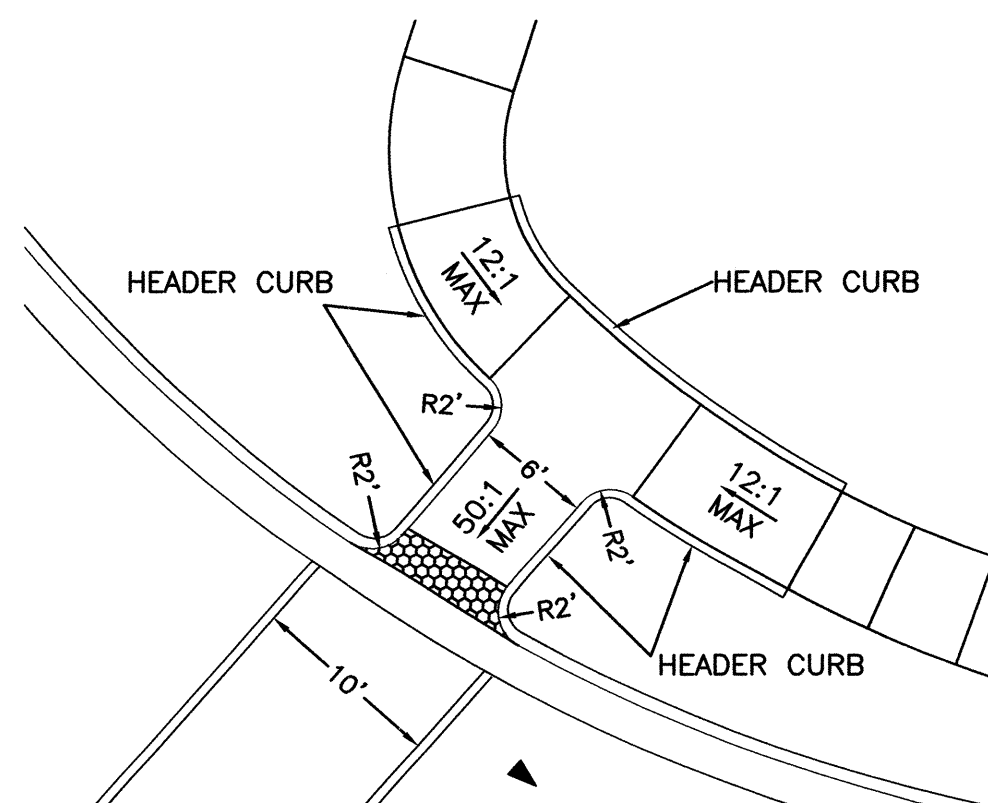
2' OVERLAY 98TH STREET PAVING SECTION



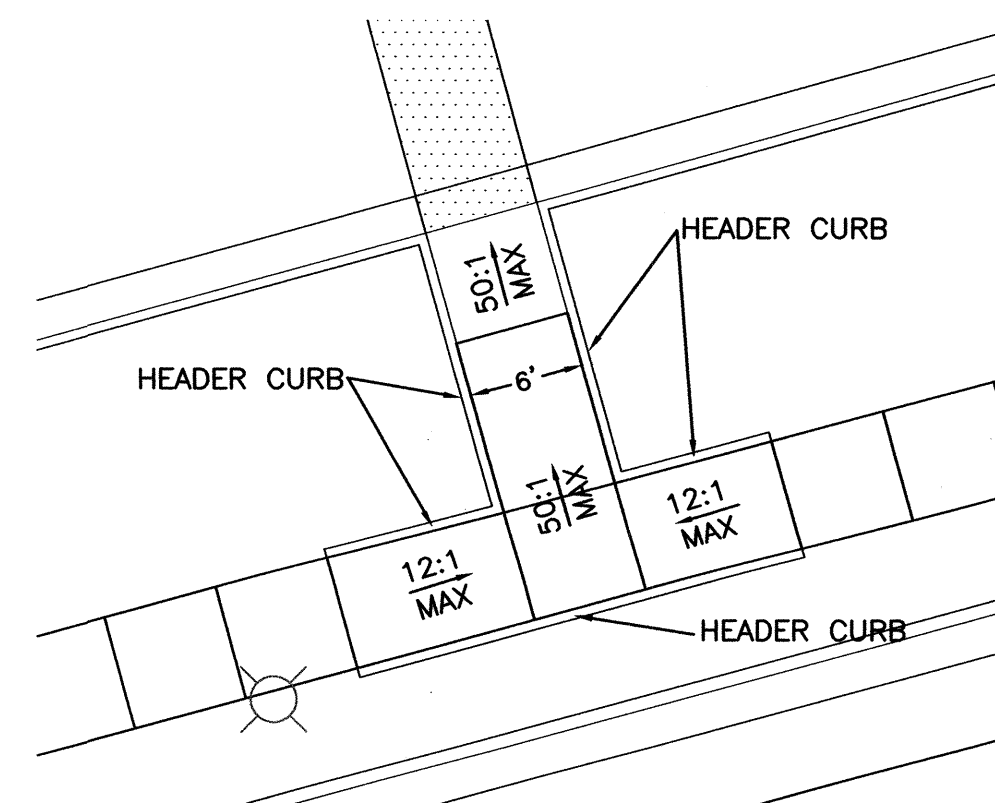
98TH STREET TYPICAL PAVING SECTION
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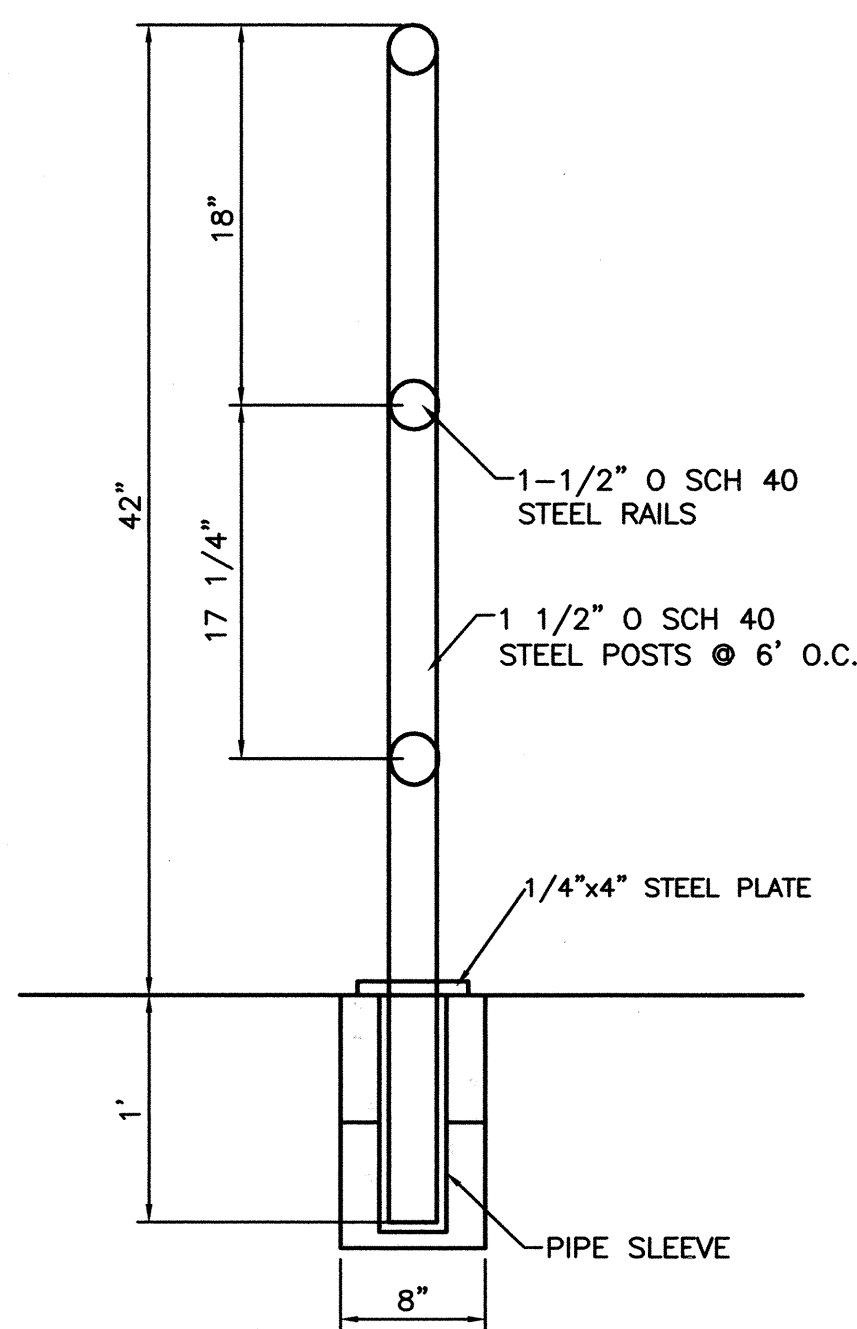
FRONTAGE ROAD PAVING SECTION



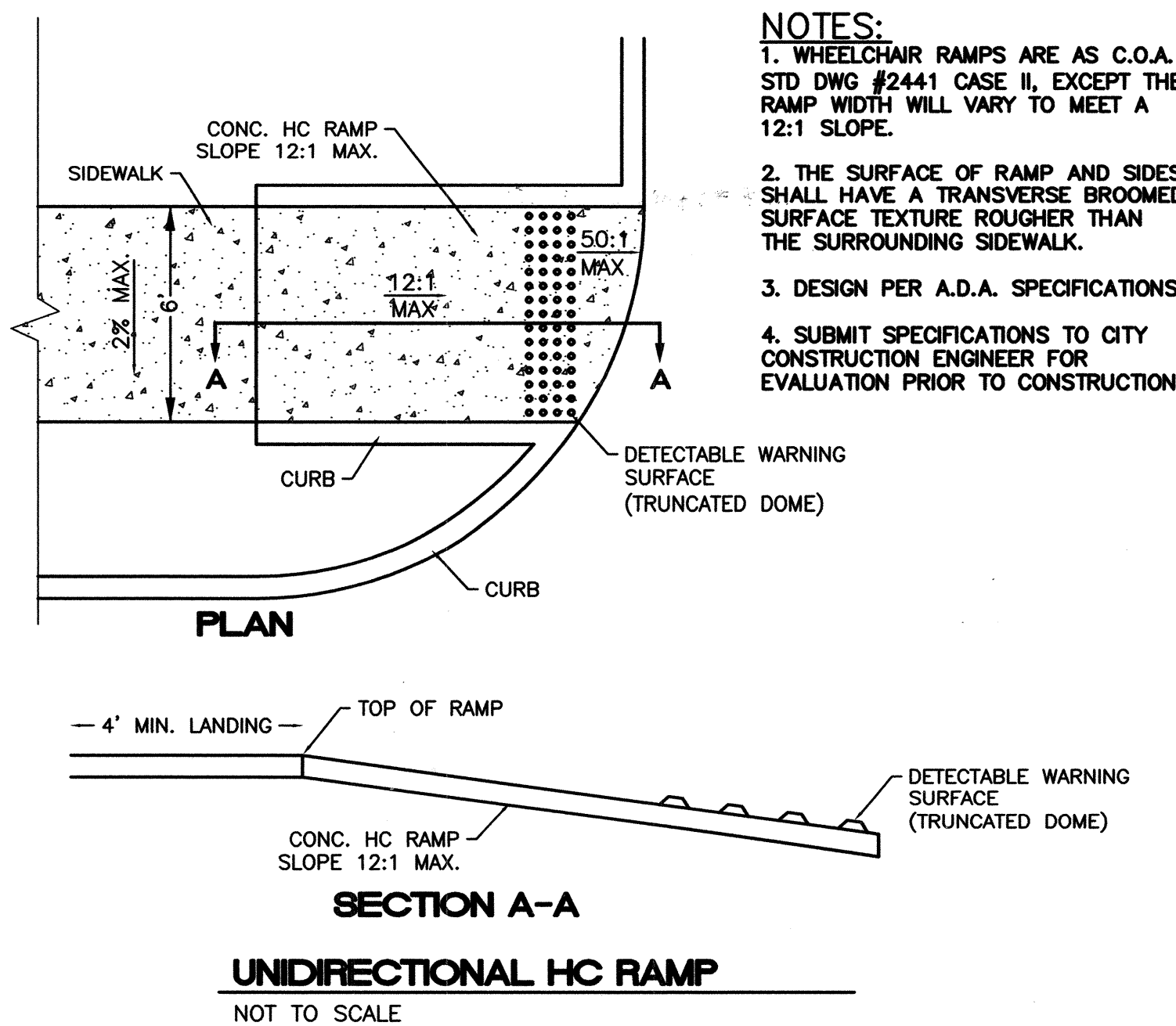
HC RAMP DETAIL



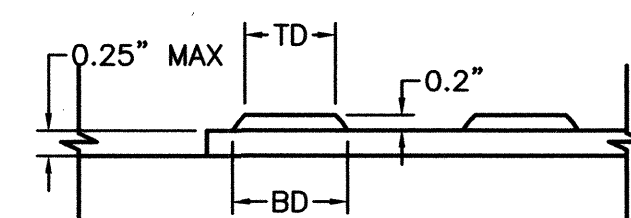
HC RAMP DETAIL
NTS



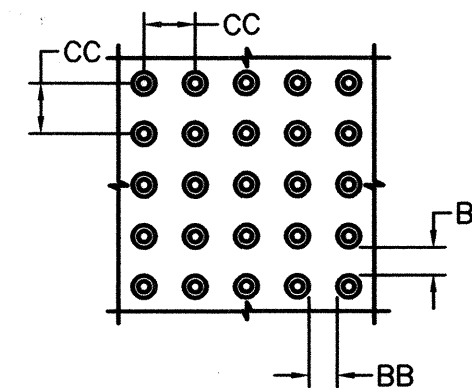
GUARD RAIL DETAIL



UNIDIRECTIONAL HC RAMP
NOT TO SCALE

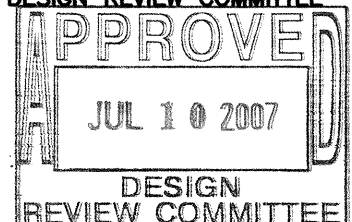
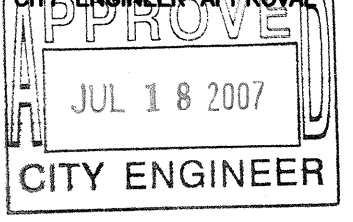
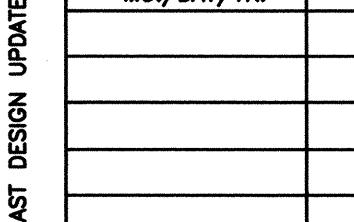


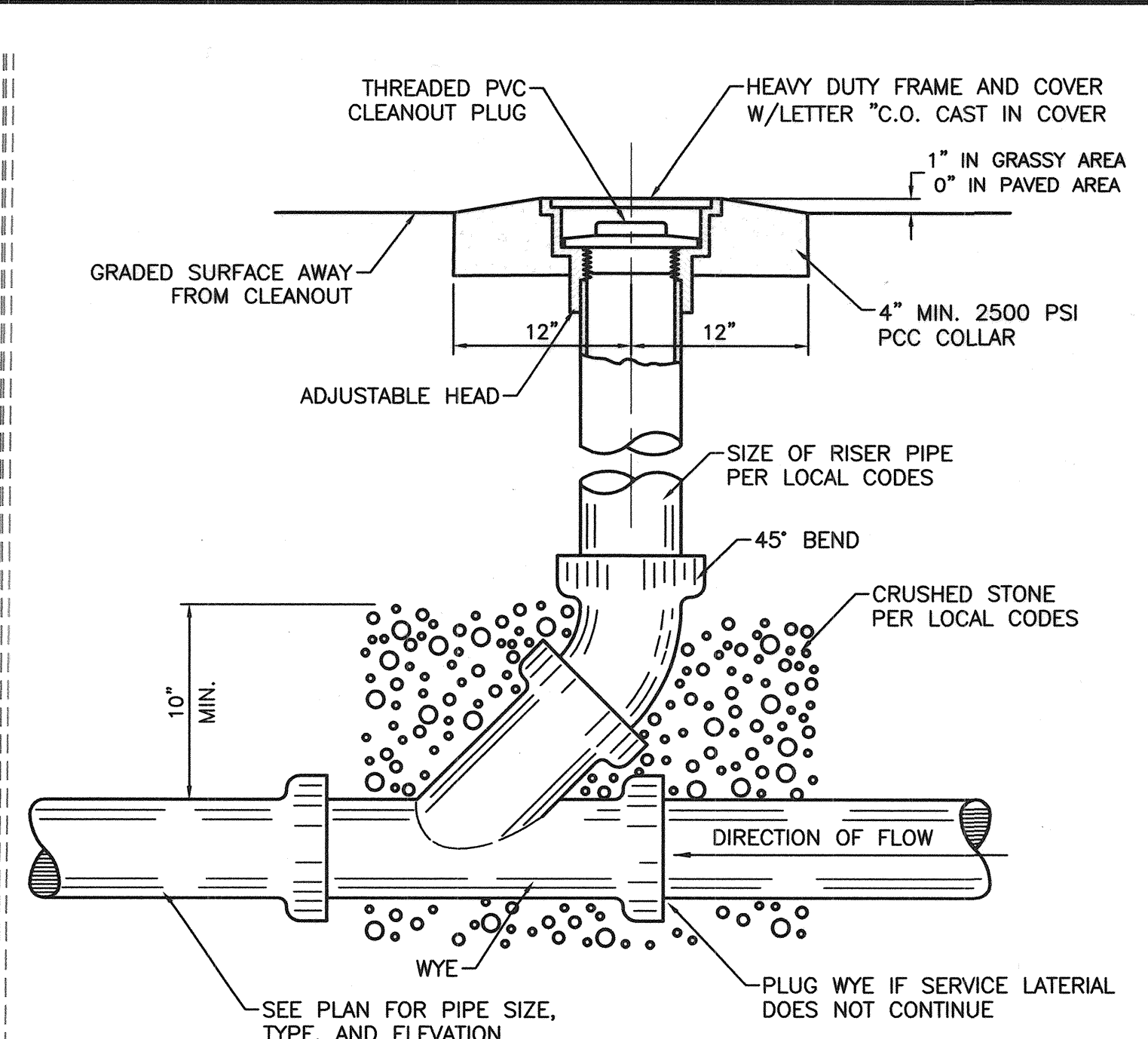
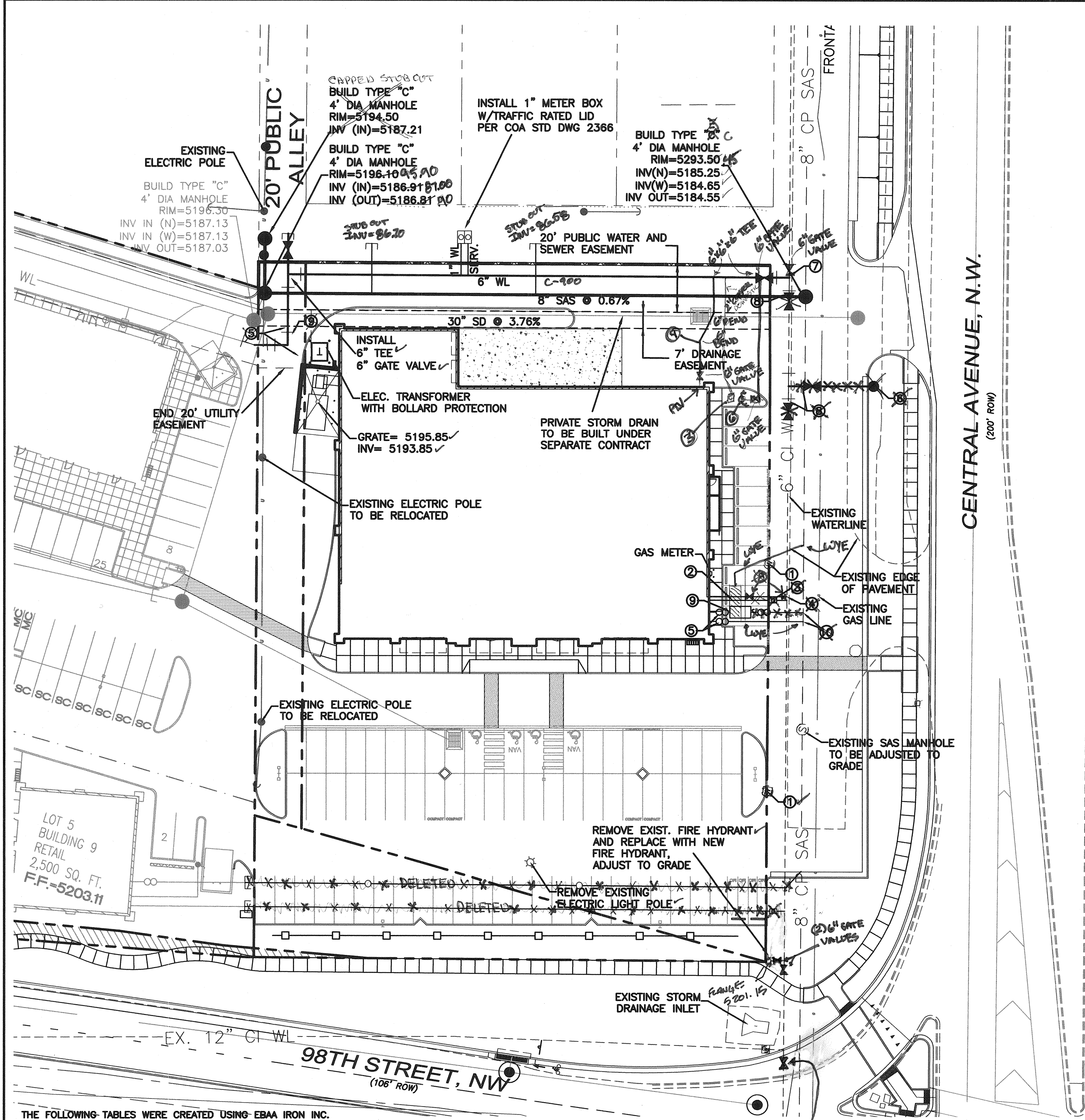
DOME SECTION
BD - BASE DIAMETER 0.9" MIN
TD - TOP DIAMETER 50% OF BD MIN TO
65% OF BD MAX



DOMESTIC SPACING
CC – CENTER TO CENTER SPACING
2.35"
BB – BASE TO BASE SPACING
1.48" MIN

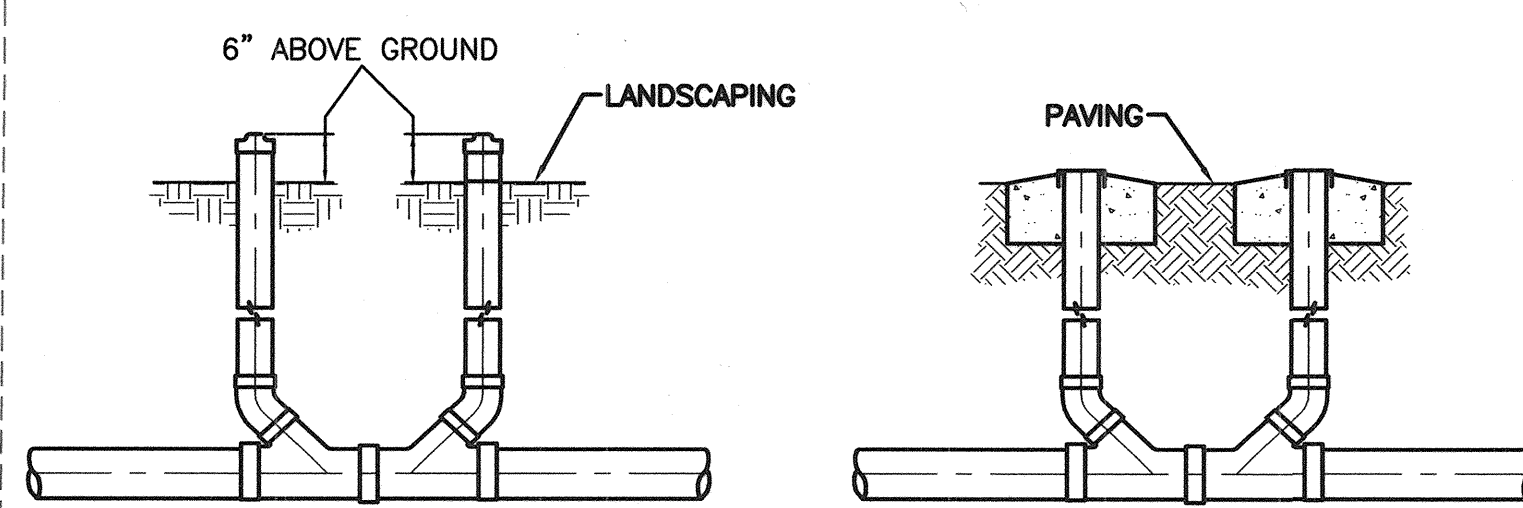
RECORD DRAWING

 TIERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100		2000 	NO. 	DATE 	DESIGNED BY 	DRAWN BY 	CHECKED BY 										
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP																	
TITLE: 98TH ST, NW AND CENTRAL AVE NW <i>PAVING SECTIONS</i>																	
DESIGN REVIEW COMMITTEE 		CITY ENGINEER APPROVAL 		LAST DESIGN UPDATE 		<table border="1"> <thead> <tr> <th>MO./DAY/YR.</th> <th>MO./DAY/YR.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </tbody> </table>		MO./DAY/YR.	MO./DAY/YR.								
MO./DAY/YR.	MO./DAY/YR.																
CITY PROJECT NO.		ZONE MAP NO.		SHEET		OF											
790382		K-9		6		10											



SANITARY SEWER CLEAN-OUT

NTS



SANITARY SEWER DOUBLE CLEAN-OUTS

NTS

NOTICE TO CONTRACTORS

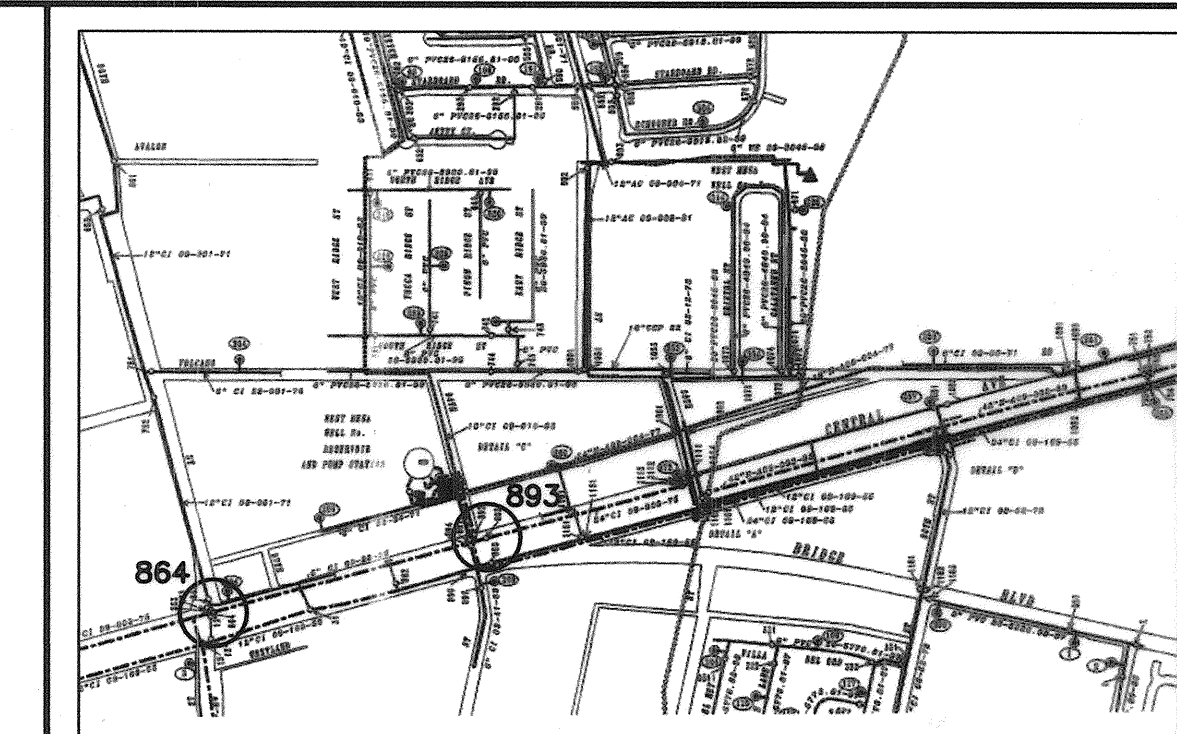
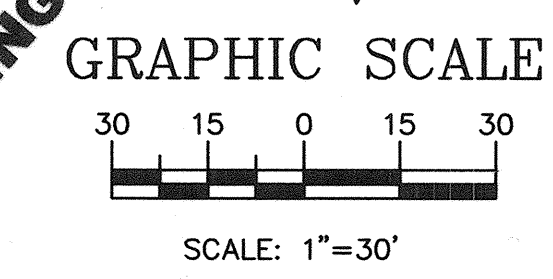
1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (260-1999).
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
6. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction with survey information provided by DAVID VIEL, NCEM # 8710

CAUTION

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.



LEGEND

- EX. 8" SAS
- EX. 16" WL
- 8" SAS
- 8" WL
- PROPOSED SANITARY SEWER LINE
- PROPOSED WATER LINE
- PROPOSED STORM SEWER
- PROPOSED CURB & GUTTER
- BOUNDARY LINE
- EXISTING BOUNDARY LINE
- EXISTING SAS MANHOLE
- EXISTING STORM SEWER MANHOLE
- EXISTING ELEC. POLE
- PROPOSED SAS MANHOLE
- PROPOSED SAS CLEANOUTS
- PROPOSED FIRE HYDRANT
- PROPOSED STORM SEWER MANHOLE
- STORM DRAIN INLET
- PARKING LOT LIGHTING

KEYED NOTES:

1. DISPOSE OF EXISTING METER BOX AND LID. SEVER AND CAP AT MAIN. TYPICAL AT ALL EXISTING WATER SERVICES.
2. CONNECT 2" SERVICE LINE TO EXISTING WATERLINE (TRAFFIC RATED).
3. INSTALL NEW 2" WATER METER PER COA STD DWG #2363. WITH TRAFFIC RATED LID SEE PAGE 3 FOR EASEMENT FOR METER & HYDRANT
4. CONNECT 6" FIRE LINE TO EXISTING WATERLINE.
5. SANITARY SEWER DOUBLE CLEAN OUT PER DETAIL THIS SHEET.
6. INSTALL NEW FIRE HYDRANT PER COA STD DWG #2340.
7. INSTALL 6"x6" TEE CONNECT TO EXISTING 6" WATERLINE.
8. INSTALL NEW 6" GATE VALVE.
9. GREASE TRAP LOCATION- SEE PLUMBING PLANS FOR DETAILS
10. INSTALL WYE AT 8" SAS FOR NEW SERVICE

GENERAL NOTES:

1. 4' MINIMUM BURY REQUIRED FOR ALL UTILITIES UNLESS NOTED.
2. REFERENCE ARCHITECTURAL PLANS FOR WATER LINE RISER LOCATION.
3. ALL STUBS AND UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
4. CLEAN OUTS TO BE BUILT PER INFORM PLUMBING CODE STANDARDS.
5. SEE ARCHITECTURAL PLANS FOR LIGHTING CONDUITS AND TELEPHONE LINES. REFER TO ELECTRICAL PLANS FOR SITE LIGHTING LOCATIONS.
6. ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE CARRIED-OUT IN ACCORDANCE WITH OSHA 29 CFR 1926.650 SUBPART P.
7. ALL UTILITY DISTANCES ARE SHOWN FOR REFERENCE ONLY.
8. FIRE LINE AND DOMESTIC WATERLINE MUST HAVE BACKFLOW PREVENTORS PER UPC. IF BACKFLOW PREVENTOR IS INSTALLED ON THE EXTERIOR OF BUILDING A HOT BOX SHALL BE INSTALLED AND USED
9. REFER TO PLUMBING AND ELECTRICAL PLANS FOR WATER AND SEWER SERVICES TO BUILDING. VERIFY ROUTING OF WATER AND SANITARY SEWER SERVICE LINES FROM BUILDING TO MAIN WITH OWNER. WATER AND SEWER SERVICE LOCATIONS TO BUILDING SHOWN FOR REFERENCE ONLY.

THE FOLLOWING TABLES WERE CREATED USING EBAA IRON INC. SOFTWARE FOR RESTRAINING JOINTS WITH THESE CRITERIA:

DEPTH OF BURY: 3.0' MINIMUM
SAFETY FACTOR: 1.5 TO 1
PIPE MATERIAL: PVC
SOIL TYPE: GM/SM-SILTY GRAVEL/SILTY SAND, GRAVEL-SAND MIXTURES
TEST PRESSURE: 150 PSI
TRENCH TYPE 3: PIPE BEDDED IN 4" MINIMUM LOOSE SOIL BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE

THESE LENGTHS WILL BE AFFECTED IF THE TYPE OF MATERIAL, GREATER DEPTH OF BURY, ETC. CHANGES. THESE MUST BE RECALCULATED BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

RESTRAINED JOINT LENGTHS FOR TEES*		LENGTH ALONG RUN**						
SIZE		5'	4'	3'	2'	1'	0'	
12x12x12	14	18	22	25	29	33		
12x12x10	6	10	14	19	23	28		
12x12x8	1	1	7	12	18	23		
12x12x6	1	1	1	3	10	18		
12x12x4	1	1	1	1	2	12		
10x10x10	9	13	17	20	24	28		
10x10x8	1	5	10	14	19	23		
10x10x6	1	1	1	6	12	18		
10x10x4	1	1	1	1	4	12		
8x8x8	5	9	13	16	20	23		
8x8x6	1	1	3	8	13	18		
8x8x4	1	1	1	1	6	12		
6x6x6	1	3	7	10	14	18		
6x6x4	1	1	1	1	6	12		

*RESTRAINTS ONLY PLACED ON THE BRANCH
**LENGTH ALONG RUN REFERS TO THE LENGTH OF PIPE ON EITHER SIDE OF THE TEE BEFORE THE NEXT JOINT.

RESTRAINED JOINT LENGTHS FOR HORIZONTAL BENDS, VALVES, AND DEAD ENDS (EACH SIDE)		HORIZONTAL BENDS				VALVES	DEAD END
SIZE		90°	45°	22-1/2°	11-1/4°		
12	15	6	3	1	1	34	
10	13	5	3	1	1	29	
8	11	4	2	1	1	24	
6	8	3	2	1	1	18	
4	6	2	1	N/A		13	

RESTRAINED JOINT LENGTHS FOR REDUCERS***		SIZE		L. SIDE		R. SIDE	
12x10	17	10x6	18				
12x8	18	10x4	23				
12x6	25	8x6	17				
12x4	29	8x4	17				
10x8	10	6x4	9				

***RESTRAINTS ONLY PLACED ON LARGE LARGE SIDE

THE FOLLOWING TABLES WERE CREATED USING EBAA IRON INC. SOFTWARE FOR RESTRAINING JOINTS WITH THESE CRITERIA:

DEPTH OF BURY: 3.0' MINIMUM
SAFETY FACTOR: 1.5 TO 1
PIPE MATERIAL: PVC
SOIL TYPE: GM/SM-SILTY GRAVEL/SILTY SAND, GRAVEL-SAND MIXTURES
TEST PRESSURE: 150 PSI
TRENCH TYPE 3: PIPE BEDDED IN 4" MINIMUM LOOSE SOIL BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE

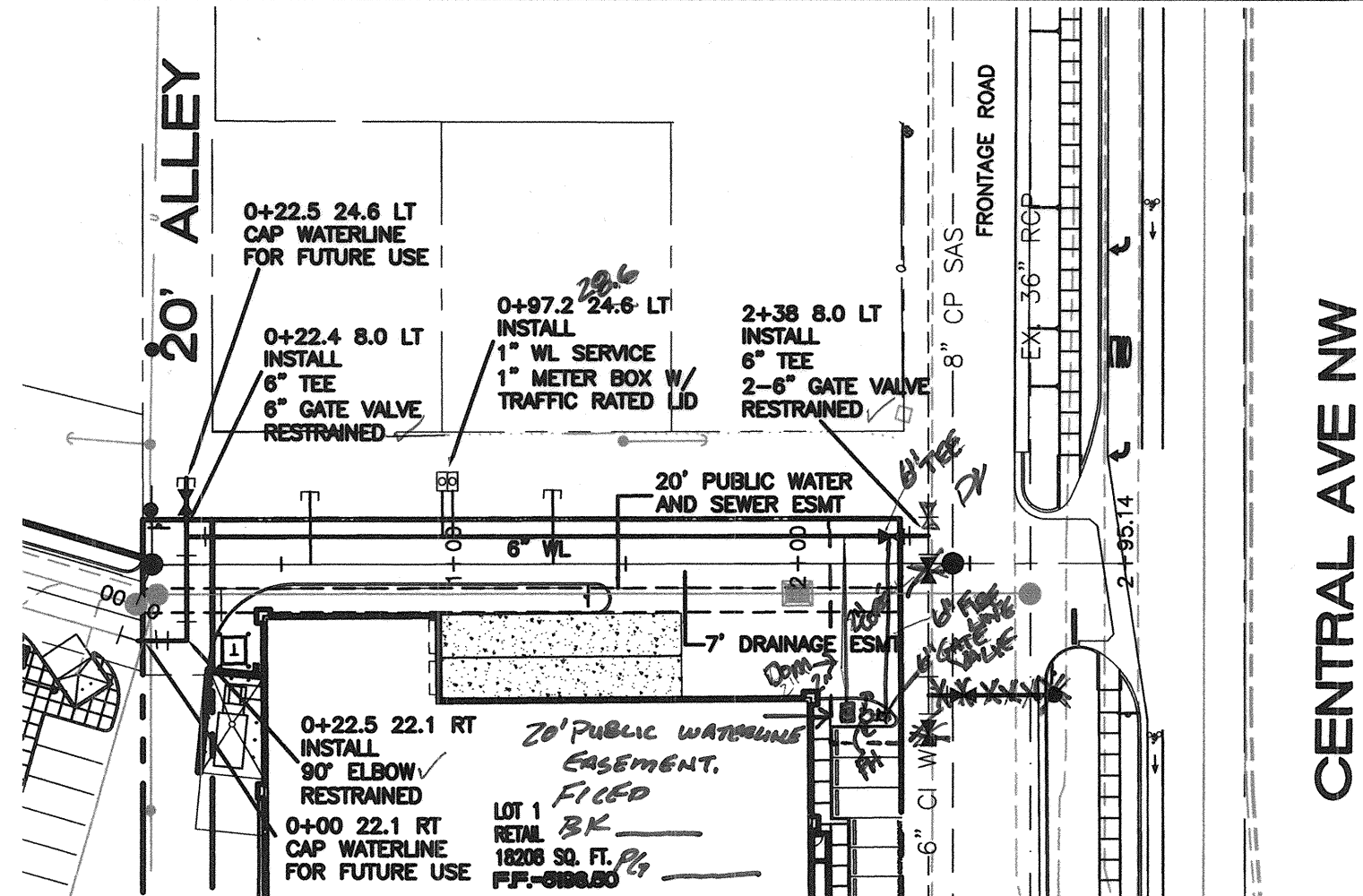
THESE LENGTHS WILL BE AFFECTED IF THE TYPE OF MATERIAL, GREATER DEPTH OF BURY, ETC. CHANGES. THESE MUST BE RECALCULATED BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

RESTRAINED JOINT LENGTHS FOR VERTICAL OFFSETS/BENDS (EACH SIDE)		HORIZONTAL BENDS			
SIZE		90°	45°	22-1/2°	11-1/4°
12 UPPER LOWER	DON'T USE	14 4	7 2	3 1	1 1
10 UPPER LOWER	DON'T USE	12 3	6 2	3 1	1 1
8 UPPER LOWER	DON'T USE	10 3	5 1	2 1	1 1
6 UPPER LOWER	DON'T USE	8 2	4 1	2 N/A	1 1
4 UPPER LOWER	DON'T USE	5 1	3 1	1 N/A	1 1

RECORD DRAWING

DATE	APPROVED BY
	FIRE MARSHALL REVIEW

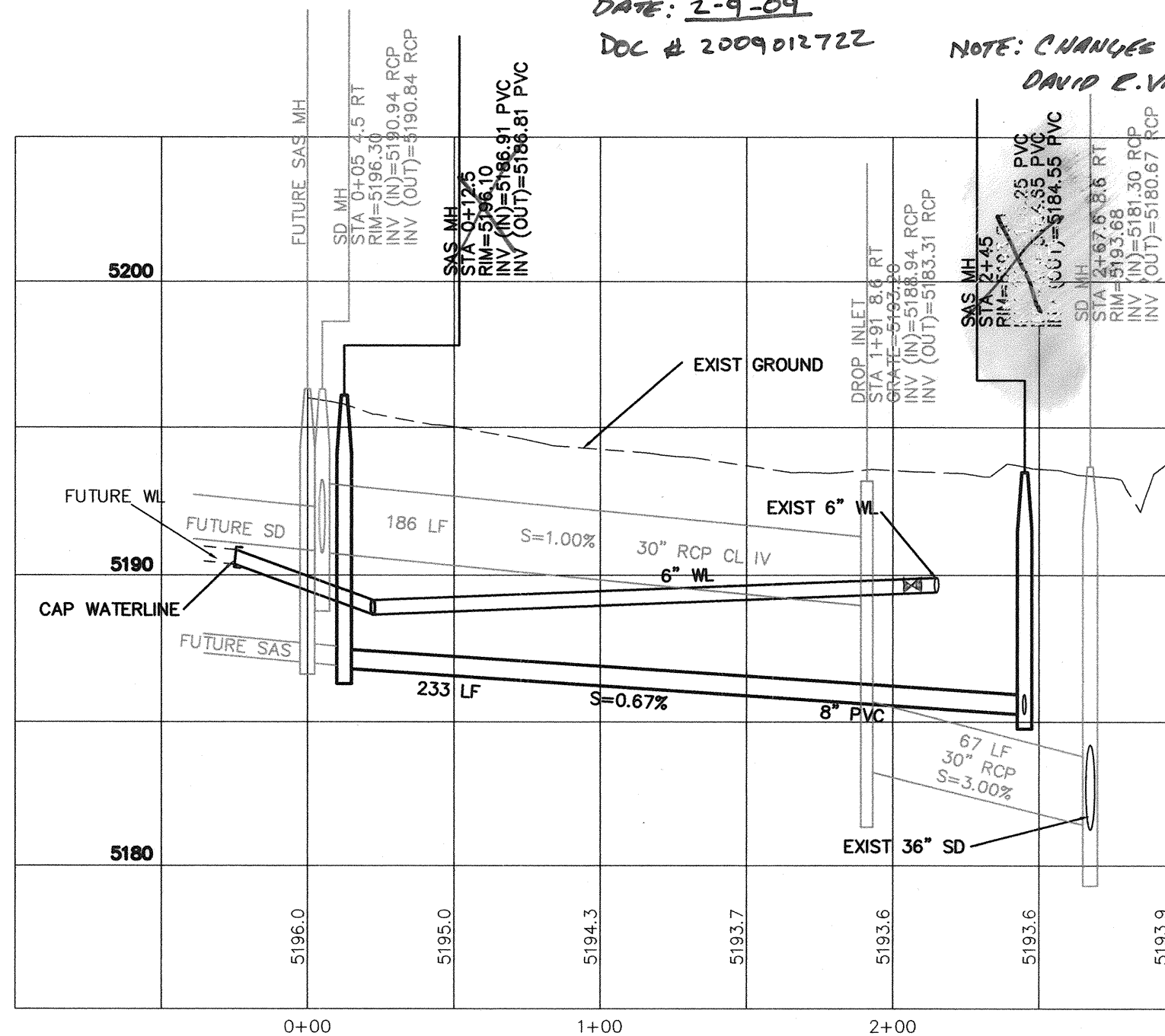
TERRA WEST, LLC 5571 MIDWAY PARK PLACE NE ALBUQUERQUE, NEW MEXICO 87109 (505) 858-3100	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING GROUP	
TITLE: 98TH ST NW AND CENTRAL AVE NW MASTER UTILITY PLAN	
DESIGN REVIEW COMMITTEE APPROVED JUL 10 2007 DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL APPROVED JUL 18 2007 CITY ENGINEER
CITY PROJECT NO. 790382	ZONE MAP NO. K-9
SHEET 7	OF 10



GENERAL NOTES:

- LEGEND:**

- | | |
|--|------------------------|
|  | EXISTING CURB & GUTTER |
|  | PROPOSED CURB & GUTTER |
|  | BOUNDARY LINE |
|  | EXISTING BOUNDARY LINE |
|  | EASEMENT |
|  | PROPOSED SIDEWALK |
|  | CENTERLINE |
|  | RIGHT-OF-WAY |
|  | PROPOSED SAS MANHOLE |
|  8" SAS | PROPOSED SAS LINE |
|  | PROPOSED VALVE W/BOX |
|  8" WL | PROPOSED WATER LINE |



WATERLINE PLAN AND PROFILE

CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction with survey information provided by Daniel Vigil - NMS&E 0011

THE FOLLOWING TABLES WERE CREATED USING EBAA IRON INC.
SOFTWARE FOR RESTRAINING JOINTS WITH THESE CRITERIA:

DEPTH OF BURY:	3.0' MINIMUM
SAFETY FACTOR:	1.5 TO 1
PIPE MATERIAL:	PVC
SOIL TYPE:	GM/SM-SILTY GRAVEL/SILTY SAND, GRAVEL-SAND MIXTURES
TEST PRESSURE:	150 PSI
TRENCH TYPE 3:	PIPE BEDDED IN 4" MINIMUM LOOSE SOIL BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE

THESE LENGTHS WILL BE AFFECTED IF THE TYPE OF MATERIAL, GREATER DEPTH OF BURY, ETC. CHANGES. THESE MUST BE RECALCULATED BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

RESTRAINED JOINT LENGTHS FOR TEES*						
SIZE	LENGTH ALONG RUN**					
	5'	4'	3'	2'	1'	0'
12x12x12	14	18	22	25	29	33
12x12x10	6	10	14	19	23	28
12x12x8	1	1	7	12	18	23
12x12x6	1	1	1	3	10	18
12x12x4	1	1	1	1	2	12
10x10x10	9	13	17	20	24	28
10x10x8	1	5	10	14	19	23
10x10x6	1	1	1	6	12	18
10x10x4	1	1	1	1	4	12
8x8x8	5	9	13	16	20	23
8x8x6	1	1	3	8	13	18
8x8x4	1	1	1	1	6	12
6x6x6	1	3	7	10	14	18
8x8x4	1	1	1	1	6	12

*RESTRAINTS ONLY PLACED ON THE BRANCH
 **LENGTH ALONG RUN REFERS TO THE LENGTH OF PIPE ON
 EITHER SIDE OF THE TEE BEFORE THE NEXT JOINT.

RESTRAINED JOINT LENGTHS FOR HORIZONTAL BENDS, VALVES, AND DEAD ENDS (EACH SIDE)					
SIZE	HORIZONTAL BENDS				VALVES DEAD END
	90°	45°	22-1/2°	11-1/4°	
12	15	6	3	1	34
10	13	5	3	1	29
8	11	4	2	1	24
6	8	3	2	1	18
4	6	2	1	N/A	13

SIZE	L SIDE	SIZE	L SIDE
12x10	17	10x6	18
12x8	18	10x4	23
12x6	25	8x6	10
12x4	29	8x4	17
10x8	10	6x4	9

***RESTRAINTS ONLY PLACED ON LARGE LARGE SIDE

THE FOLLOWING TABLES WERE CREATED USING EBAA IRON INC. SOFTWARE FOR RESTRAINING JOINTS WITH THESE CRITERIA:

DEPTH OF BURY: 3.0' MINIMUM
SAFETY FACTOR: 1.5 TO 1
PIPE MATERIAL: PVC
SOIL TYPE: GM/SM-SILTY GRAVEL/SILTY SAND, GRAVEL-SAND MIXTURES
TEST PRESSURE: 150 PSI
TRENCH TYPE 3: PIPE BEDDED IN 4" MINIMUM LOOSE SOIL
BACKFILL LIGHTLY CONSOLIDATED TO TOP OF PIPE

THESE LENGTHS WILL BE AFFECTED IF THE TYPE OF MATERIAL, GREATER DEPTH OF BURY, ETC. CHANGES. THESE MUST BE RECALCULATED BY THE DESIGN ENGINEER PRIOR TO CONSTRUCTION.

RESTRAINED JOINT LENGTHS FOR VERTICAL OFFSETS/BENDS (EACH SIDE)					
SIZE		HORIZONTAL BENDS			
		90°	45°	22-1/2°	11-1/4°
12	UPPER	DON'T	14	7	3
	LOWER	USE	4	2	1
10	UPPER	DON'T	12	6	3
	LOWER	USE	3	2	1
8	UPPER	DON'T	10	5	2
	LOWER	USE	3	1	1
6	UPPER	DON'T	8	4	2
	LOWER	USE	2	1	N/A
4	UPPER	DON'T	5	3	N/A
	LOWER	USE	1	1	N/A

CAUTION:

ALL EXISTING UTILITIES SHOWN WERE OBTAINED FROM RESEARCH, AS-BUILTS, SURVEYS OR INFORMATION PROVIDED BY OTHERS. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT ALL NECESSARY FIELD INVESTIGATIONS PRIOR TO AND INCLUDING ANY EXCAVATION, TO DETERMINE THE ACTUAL LOCATION OF UTILITIES AND OTHER IMPROVEMENTS, PRIOR TO STARTING THE WORK. ANY CHANGES FROM THIS PLAN SHALL BE COORDINATED WITH AND APPROVED BY THE ENGINEER.

RECORD DRAWING

SCALE: HORIZ. 1"=50'
 VERT. 1"=5'

TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **PUBLIC RIGHT-OF-WAY**
SAS AND WATERLINE PLAN AND PROFILE

DESIGN REVIEW COMMITTEE
APPROVED
JUL 10 2007
DESIGN REVIEW COMMITTEE

CITY ENGINEER APPROVAL

JUL 18 2007

CITY ENGINEER

LAST DESIGN UPDATE					
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MO./DAY/

YR.	

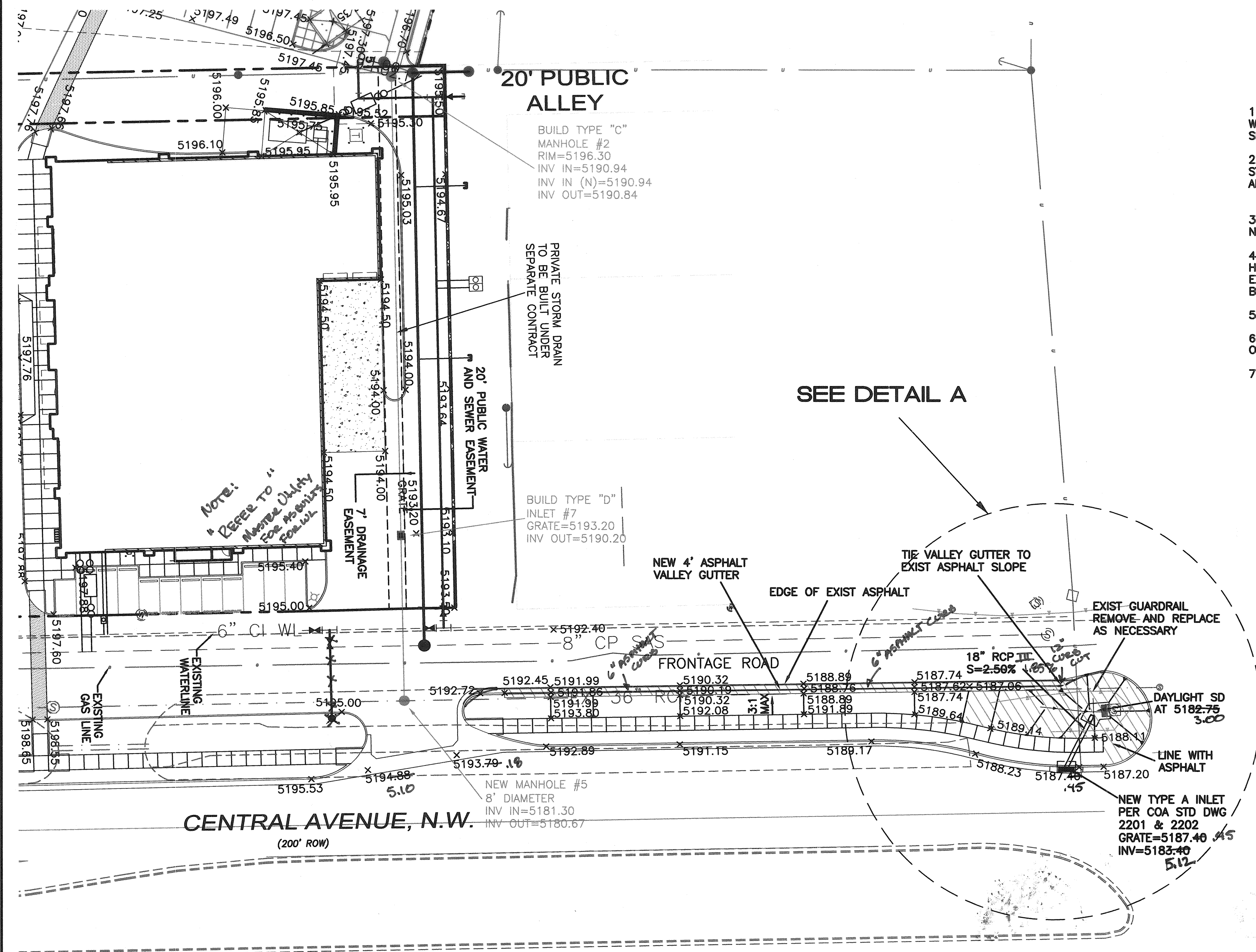
MO./DAY/

CITY PROJECT NO. **790382**

ZONE MAP NO
K-9

SHEET 8 OF 10

Z:\2005\25066\Drawings\Construction\MARKET\2566-SAS PP.dwg, Layout1, 3/30/2007 9:33:25 AM



NOTICE TO CONTRACTORS

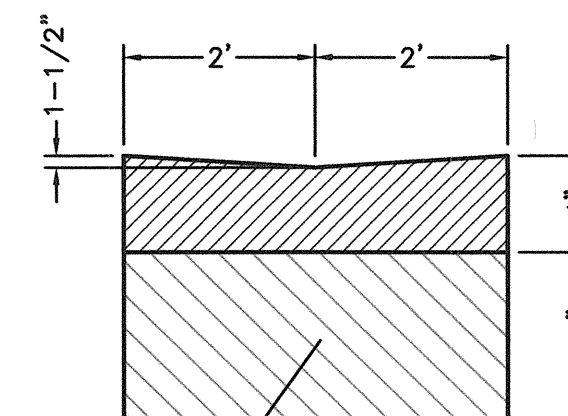
1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM (280-1999).
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL CONSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACK FILL COMPACTION SHALL BE ACCORDING TO RESIDENTIAL STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24-HOUR BASIS.

EROSION CONTROL PLAN, NPDES PERMIT AND POLLUTION PREVENTION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TOPSOIL DISTURBANCE PERMIT PRIOR TO BEGINNING WORK.
2. CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL SEDIMENT OUT OF EXISTING RIGHT-OF-WAY.
3. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL STORM RUN OFF ON SITE.
4. REPAIR OF DAMAGED FACILITIES AND CLEAN-UP OF SEDIMENT ACCUMULATION ON ADJACENT PROPERTIES AND IN PUBLIC FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL EXPOSED EARTH SURFACES MUST BE PROTECTED FROM WIND AND WATER EROSION PRIOR TO FINAL ACCEPTANCE OF ANY PROJECT.
6. CONTRACTOR IS RESPONSIBLE FOR OBTAINING NPDES PERMIT FOR THE SITE.

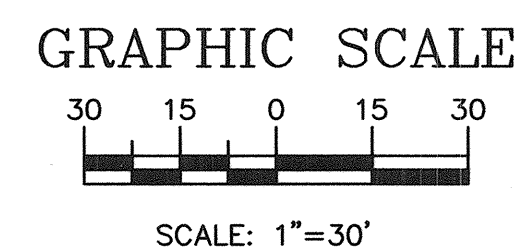
LEGEND

---	EX. 8" SAS	---	EXISTING SANITARY SEWER LINE
---	EX. 16" WL	---	EXISTING WATER LINE
---		---	EXISTING ELEC. UTILITY
---		---	EXISTING STORM SEWER
---	8" SAS	---	PROPOSED SANITARY SEWER LINE
---	8" WL	---	PROPOSED WATER LINE
---		---	PROPOSED STORM SEWER
---		---	PROPOSED CURB & GUTTER
---		---	BOUNDARY LINE
---		---	EXISTING BOUNDARY LINE
---		---	EXISTING SAS MANHOLE
---		---	EXISTING STORM SEWER MANHOLE
---		---	EXISTING ELEC. POLE
---		---	PROPOSED SAS MANHOLE
---		---	PROPOSED SAS CLEANOUTS
---		---	PROPOSED FIRE HYDRANT
---		---	PROPOSED STORM SEWER MANHOLE
---		---	STORM DRAIN INLET
---		---	PARKING LOT LIGHTING
---		---	ASPHALT LINING



CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

I, Ronald R. Bohannon, of the firm of Tierra West LLC, a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction with survey information provided by DAVID VIGIL, NMP# 8911



CAUTION:

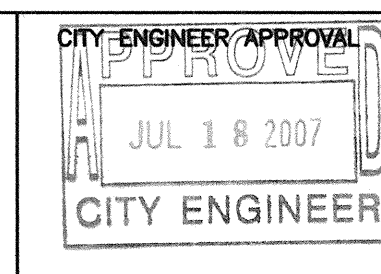
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RECORD DRAWING

TIERRA WEST, LLC
5571 MIDWAY PARK PLACE NE
ALBUQUERQUE, NEW MEXICO 87109
(505) 858-3100

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: **98TH ST NW AND CENTRAL AVE NW**
STORM DRAINAGE IMPROVEMENTS



MO./DAY/YR.	MO./DAY/YR.

CITY PROJECT NO.	ZONE MAP NO.	SHEET	OF
790382	K-9	9	10



NO.	DATE	REMARKS
		DESIGN
		DESIGNED BY: SA
		DRAWN BY: PM
		DRAWING NAME: 2566-GRB.DWG
		CHECKED BY: RB

