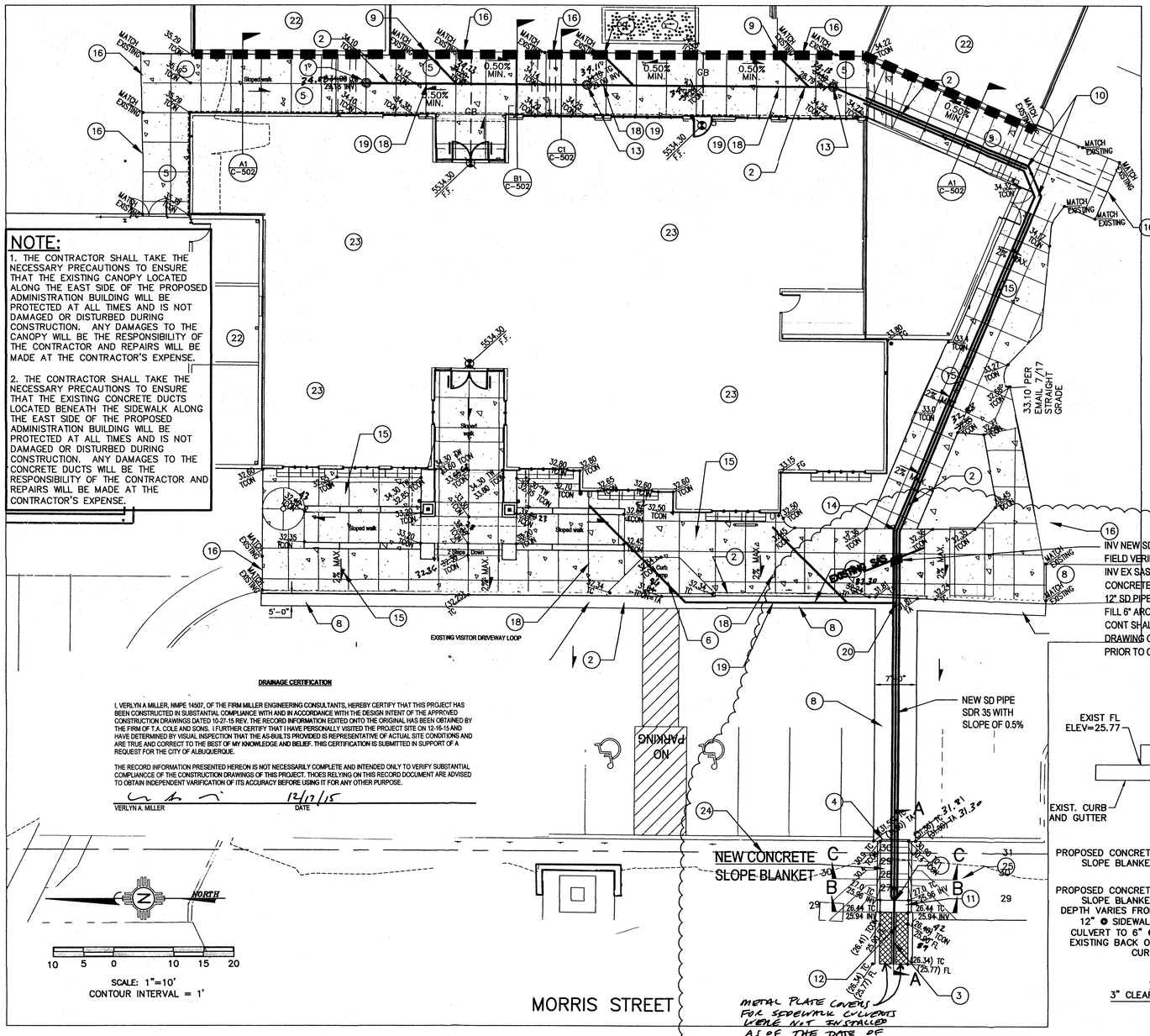
DEC 17 2015
LAND DEVELOPMENT SECTION

APS PROJECT NO: 0240.0005

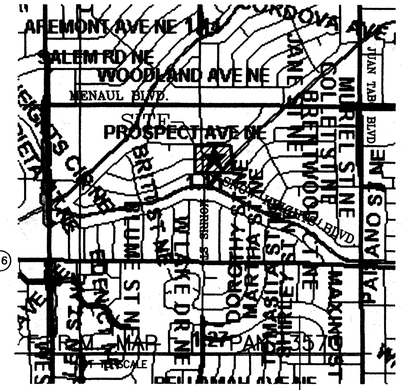


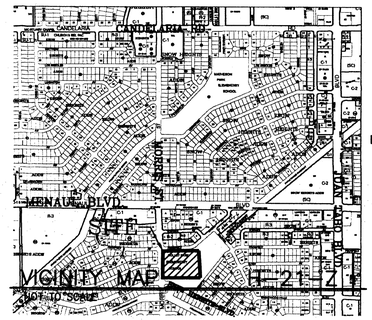
DRAINAGE CERTIFICATION

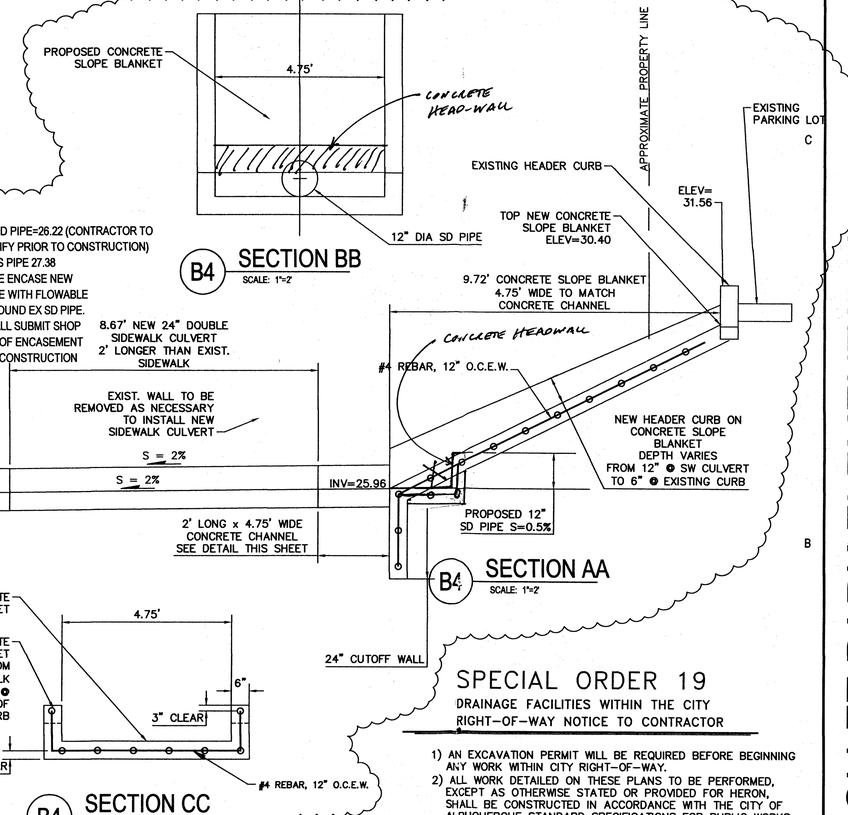
I, VERLYN A MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 10-27-15 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 12-16-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE CONSTRUCTION DRAWINGS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VARIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

VERLYN A. MILLER — 12/17/15 DATE







B4 SECTION BB
SCALE: 1"=2'

B4 SECTION AA
SCALE: 1"=2'

B4 SECTION CC
SCALE: 1"=2'

INV NEW SD PIPE=26.22 (CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION)
INV EX SAS PIPE 27.38
CONCRETE ENCASE NEW 12" SD PIPE WITH FLOWABLE FILL 6" AROUND EX SD PIPE. CONT SHALL SUBMIT SHOP DRAWING OF ENCASEMENT PRIOR TO CONSTRUCTION

8.67' NEW 24" DOUBLE SIDEWALK CULVERT 2' LONGER THAN EXIST. SIDEWALK

SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRUGH UPDATE #7 AMENDMENT 1.
3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
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 TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 - HOUR BASIS.

LEGEND:

(35.25) TCON	EXISTING SPOT ELEVATION
ELEV. FG	SPOT ELEVATION
TC	TOP OF CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TW	TOP OF WALL
BW	BOTTOM OF WALL
TCON	TOP OF CONCRETE
TS	TOP OF SIDEWALK
FG	FINISH GRADE
	SWALE
	HIGH POINT
5120	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	DRAINAGE FLOW ARROW

KEYED NOTES:

1. NEW 18"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
2. NEW 12"ø STORM DRAIN PIPE, SLOPE=0.50%.
3. NEW DOUBLE 24" WIDE SIDEWALK CULVERT PER CITY OF ALBUQUERQUE STANDARD DRAWING #2236. COVER SHALL EXTEND 24" PAST EXIST. SIDEWALK. CONTRACTOR SHALL TACK WELD THE BOLTS AT THE PLATE.
4. ASPHALT/CURB AND GUTTER REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT/CURB AND GUTTER TO A CLEAN STRAIGHT EDGE. REPLACE AND MATCH TO EXISTING SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
5. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SECTIONS. SLOPE PER PLANS AND DETAILS ON SHEET C-502.
6. NEW HANDICAP RAMP. SEE ARCHITECTURAL SHEETS FOR DETAIL.
7. OUTFALL OF NEW 12" STORM DRAIN PIPE. INV.= 25.96
8. ASPHALT REMOVAL AND REPLACEMENT AS REQUIRED FOR CONCRETE SIDEWALK INSTALLATION. CONTRACTOR SHALL SAWCUT ASPHALT TO A CLEAN STRAIGHT EDGE. NEW ASPHALT SECTION SHALL MATCH EXISTING ASPHALT SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
9. CONNECT EXISTING DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
10. NEW 12"X12"X45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
11. NEW 4'-9" WIDE CONCRETE CHANNEL. SEE SHEET C-502 FOR DETAIL.
12. NEW WALL CUT, AS NECESSARY TO INSTALL DRAINAGE COMPONENTS AS SHOWN ON THIS SHEET. REMOVE AND DISPOSE OF CONCRETE.
13. NEW 12"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW 12"X12"X22.5° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
15. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SIDEWALK DETAILS. SLOPE PER PLANS AND AS INDICATED ON SHEET C-502.
16. SAWCUT EXISTING CONCRETE SIDEWALK TO A CLEAN STRAIGHT EDGE. MATCH EXISTING ELEVATIONS AND PROVIDE SEALED CONSTRUCTION JOINT AT THE INTERFACE.
17. CONNECT NEW DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
18. NEW 6"ø STORM DRAIN PIPE. SLOPE = 1.00%
19. NEW 6"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
20. NEW 12"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
21. NEW 6"X12" ELBOW. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
22. EXISTING BUILDING TO REMAIN.
23. EXISTING BUILDING TO BE EXPANDED AND RENOVATED.
24. APPARENT RIGHT OF WAY/PROPERTY LINE.
25. CONTRACTOR SHALL REMOVE AND REINSTALL LANDSCAPING AS NECESSARY TO INSTALL NEW DRAINAGE IMPROVEMENTS. CONTRACTOR SHALL REUSE EXISTING LANDSCAPING MATERIAL.

A1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'

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VERLYN A. MILLER — NEW MEXICO — 14507 — REGISTERED PROFESSIONAL ENGINEER — rev 10/21/15

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:

C-101AR
RFI 56
project no. 08-007

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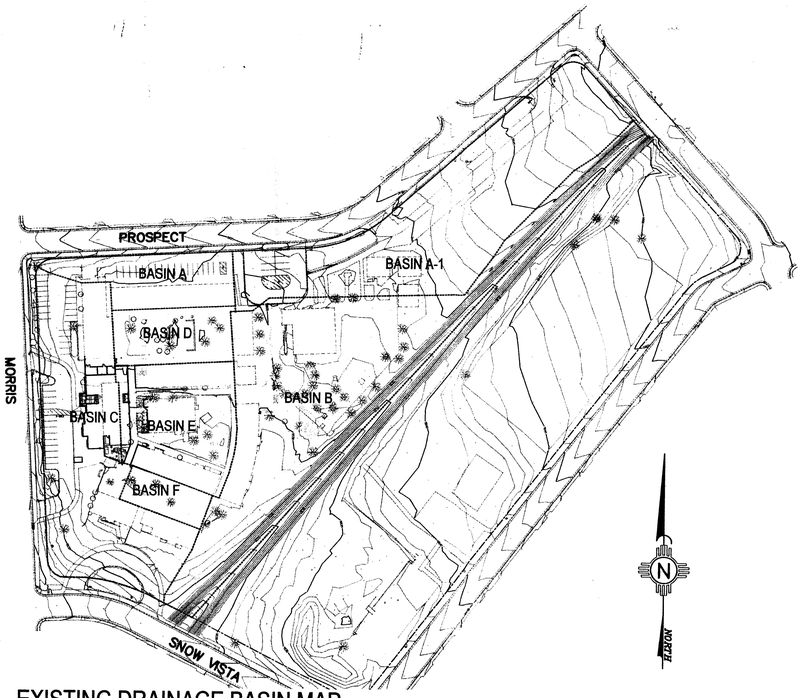
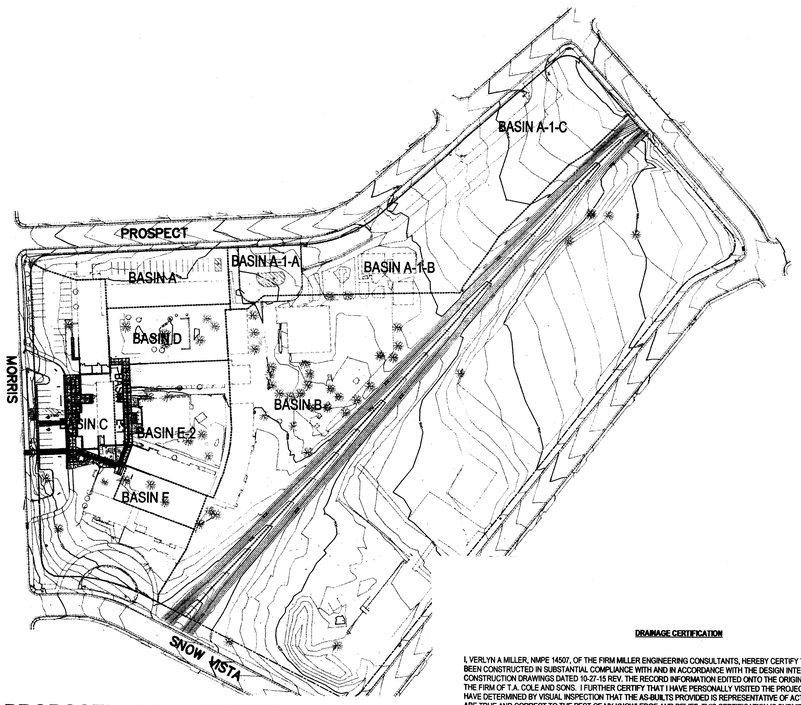
APS PROJECT NO: 0240.0005



C1 EXISTING DRAINAGE BASIN MAP
SCALE: 1" = 100'



A1 PROPOSED DRAINAGE MAP
SCALE: 1" = 100'

SITE LOCATION

COLLET PARK ELEMENTARY IS LOCATED AT 2100 MORRIS ST. N.E. IN ALBUQUERQUE, NM. THE SCHOOL BOUNDARY IS IRREGULAR AND BOUNDED BY PROSPECT AVENUE TO THE NORTH, MORRIS STREET TO THE WEST, SNOW VISTA BOULEVARD TO THE SOUTH AND ON THE EAST BY GRETTA STREET AND MARTHA STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS DEVELOPED WITH ELEMENTARY SCHOOL INFRASTRUCTURE INCLUDING CLASS ROOM BUILDINGS, PAVED PARKING LOTS, AND PLAYGROUNDS. A MASTER GRADING AND DRAINAGE PLAN WAS APPROVED IN 1994. THE PROPERTY WAS DIVIDED INTO NINE BASINS, WHICH ARE ALPHABETICALLY IDENTIFIED. SINCE IMPROVEMENTS ARE WITHIN BASIN C AND E-1, THIS REPORT FOCUSES ONLY ON THE HYDORLOGIC NET DIFFERENCES IN THESE BASINS. BASIN C DRAINS TO MORRIS STREET VIA SURFACE FLOWS. A PORTION OF BASIN E DRAINS TO MORRIS STREET VIA SURFACE FLOWS AND A PORTION OF BASIN E DRAINS TO PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C AND E.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A SINGLE, ONE STORY BUILDING AND THE RENOVATION OF EXISTING BUILDING STRUCTURES INCLUDING NEW CONCRETE SIDEWALKS AND HANDICAP ACCESS RAMPS FROM THE LOOP DROP OFF LANE AND GRADING. THE IMPROVEMENTS HAVE DIVIDED EXISTING DRAINAGE BASIN E INTO TWO SEPERATE PROPOSED DRAINAGE BASINS AS SHOWN ON PROPOSED BASIN MAP ON THIS SHEET. THE MAJORITY OF THE STORM WATER FLOW GENERATED FROM THE DEVELOPMENT WITHIN BASIN C WILL CONTINUE TO DRAIN TO MORRIS STREET VIA SURFACE FLOW. THE STORM WATER FLOW GERNERATED WITHIN BASIN E-1 WILL BE COLLECTED BY A NEW STORM DRAIN SYSTEM. THIS FLOW WILL THEN BE CONVEYED TO MORRIS STREET. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C, E-1 AND E-2.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN C BY 0.015 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.13 CFS. RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN E BY 0.0 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.0 CFS. THE MAJORITY OF THE RUNOFF DEVELOPED FROM THE PROPOSED IMPROVEMENTS WILL DISCHARGE TO MORRIS STREET VIA SURFACE FLOW FROM BASIN C AND VIA THE NEW STORM DRAINAGE SYSTEM FROM BASIN E-1. THERE ARE NOT ANY IMPROVEMENTS BEING DONE IN PROPOSED BASIN E-2. THESE CALCULATIONS TAKE INTO CONSIDERATION PARKING LOT IMPROVEMENTS SHOWN ON PLANS BY WILSON AND COMPANY STAMP DATED 9-17-2010 (H21/D010) AS EXISTING CONDITIONS.

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3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
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DRAINAGE CERTIFICATION

I, VERLYN A. MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 10-27-15 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 12-16-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

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VERLYN A. MILLER — DATE 12/17/15

GENERAL NOTES:

1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY JEFF MORTENSEN AND ASSOCIATES. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERFICATION OF THIS INFORMATION.
2. PROJECT BENCHMARK IS ACS BRASS DISC STAMPED "2-H21", SET ON TOP OF A CONCRETE POST FLUSH WITH TOP OF CURB, LOCATED AT THE INTERSECTION OF MENAUL BOULEVARD N.E. AND JUAN TABO BOULEVARD N.E.
   ELEVATION = 5605.234 FEET (NAVD 1988)

   TEMPORARY BENCHMARK #1 IS A P.K. NAIL AT TOP BACK OF CURB, LOCATED ON THE SOUTHWEST CORNER OF PROSPECT AVENUE N.E. AND MORRIS STREET N.E., ELEVATION = 5528.32 FEET (NAVD 1988)
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
6. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
7. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
8. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X. DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 357G.
10. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
11. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
12. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY. (FUGITIVE DUST PERMIT)
14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES, INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT.
16. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
18. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
19. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
20. THE CONTRACTOR SHALL SUMBIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
21. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THECITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
22. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY CONFLICTS BETWEEN EXISTING OR PROPOSED UTILITIES ON THIS PROJECT PRIOR TO CONSTRUCTION.

DRAINAGE DATA

Percipitation Zone 4 - 10-year Storm P(360) = 1.93 in P(1440) = 2.44 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B	C	D	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	1.38	0.139	0.175	3.72
E	0.62	0.00	0.00	0.13	0.49	1.49	0.077	0.097	2.04
Total	**1.83**								**5.77**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	1.45	0.146	0.186	3.84
E-1	0.07	0.00	0.00	0.00	0.07	1.69	0.010	0.013	0.25
E-2	0.55	0.00	0.00	0.13	0.42	1.46	0.067	0.085	1.79
Total	**1.83**								**5.88**

Percipitation Zone 4 - 100-year Storm P(360) = 2.92 in P(1440) = 3.65 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B	C	D	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	2.24	0.226	0.280	5.67
E	0.62	0.00	0.00	0.13	0.49	2.39	0.124	0.154	3.06
Total	**1.83**								**8.72**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	2.33	0.235	0.295	5.80
E-1	0.07	0.00	0.00	0.00	0.07	2.64	0.015	0.020	0.37
E-2	0.55	0.00	0.00	0.13	0.42	2.36	0.108	0.134	2.69
Total	**1.83**								**8.86**

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VERLYN A. MILLER — NEW MEXICO — 14507 — REGISTERED PROFESSIONAL ENGINEER — 12/17/15

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

DRAINAGE REPORT AND CALCULATION

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:

C-102A

project no. 08-007

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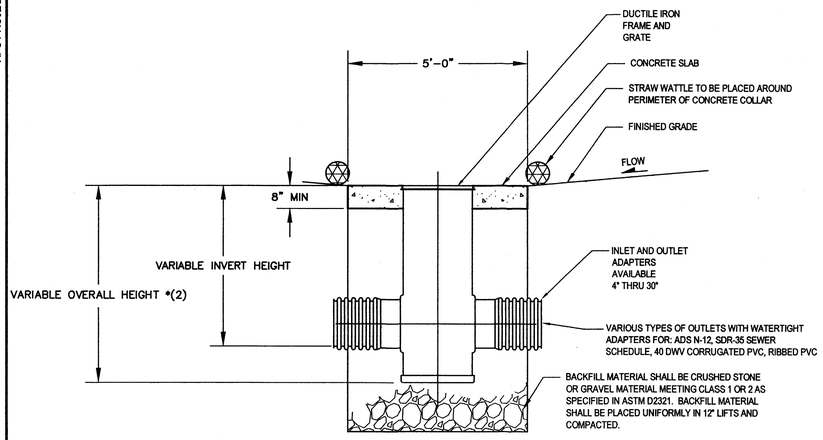

C1 DRAIN BASIN CONCRETE COLLAR AND STRAW WATTLE
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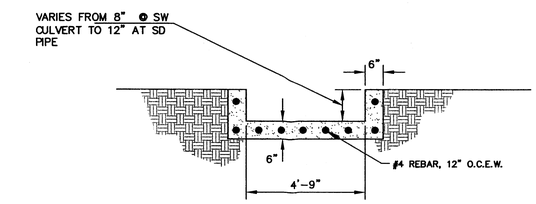

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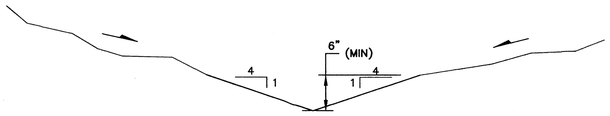

C3 TYPICAL EARTHEN SWALE
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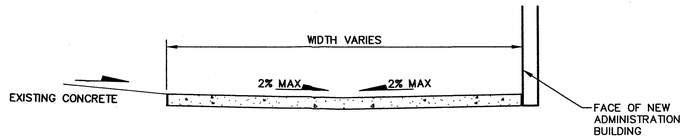
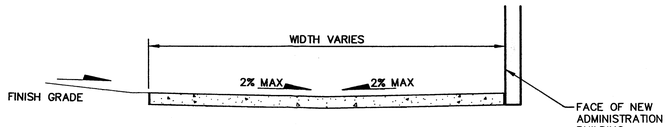


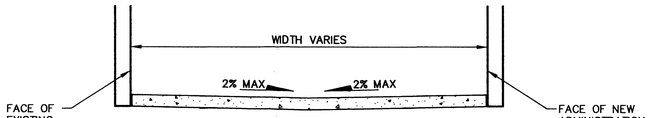
D4 TYPICAL SIDEWALK SECTION 'C1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



C4 TYPICAL SIDEWALK SECTION 'B1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



B4 TYPICAL SIDEWALK SECTION 'A1'
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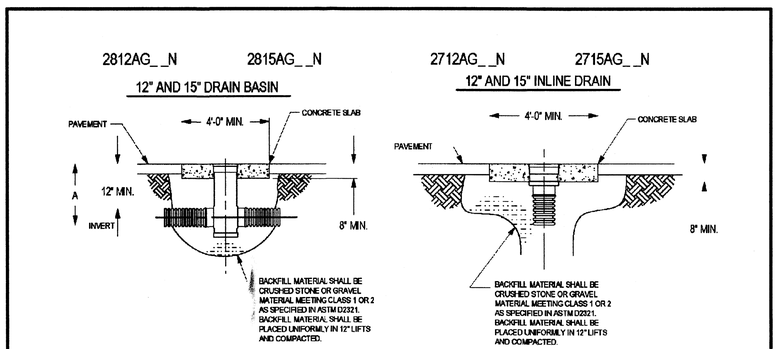
SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



PIPE SIZE	A (ADS N-12 PIPE)
4"	17.00"
6"	19.00"
8"	21.00"
10"	24.00"
12"	26.00"
15"	29.00"

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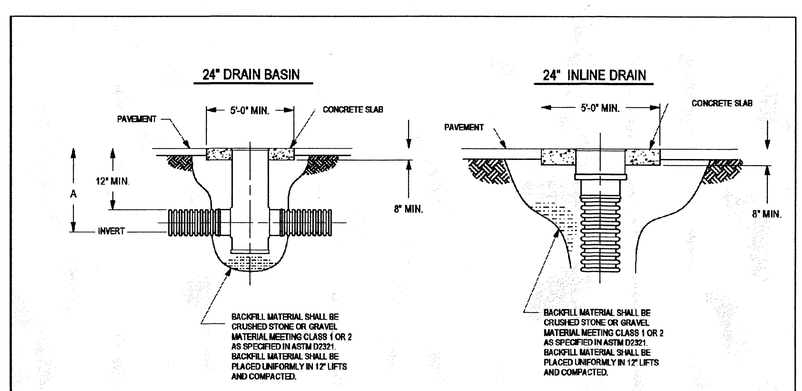
DRAWN BY ANA	MATERIAL	
DATE 10AUG06		
APP'D BY CJA	PROJECT NO./NAME	
DATE 18FEB01	DRAIN BASIN / INLINE DRAIN	
DWG SIZE A	SCALE 1:100 SHEET 1 OF 1	

Nyloplast
3130 VERONA AVE
BUFORD, GA 30518
PHN (770) 932-2443
FAX (770) 932-3490
www.nyloplast-us.com

A1 NYLOPLAST DRAIN BASIN DETAIL
SCALE: NOT TO SCALE



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DRAWN BY ANA	MATERIAL	
DATE 06AUG08		
APP'D BY CJA	PROJECT NO./NAME	
DATE 18FEB01	DRAIN BASIN / INLINE DRAIN	
DWG SIZE A	SCALE 1:100 SHEET 1 OF 1	

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TITLE: 24" H-25 (HEAVY TRAFFIC) INSTALLATION
DWG NO. 7005-110-003 REV D

NOTE: DRAIN BASIN COVERS SHALL BE ADA COMPLIANT AND PEDESTRIAN RATED.

DRAINAGE CERTIFICATION

I, VERLYN A. MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 10-27-15 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 12-16-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE CONSTRUCTION DRAWINGS OF THIS PROJECT. THOSE RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VARIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

12/17/15
VERLYN A. MILLER — DATE

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VERLYN A. MILLER
NEW MEXICO
14507
12/17/15
REGISTERED PROFESSIONAL ENGINEER

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

MISCELLANEOUS DETAILS

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:
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2
3

C-502

project no. 08-007

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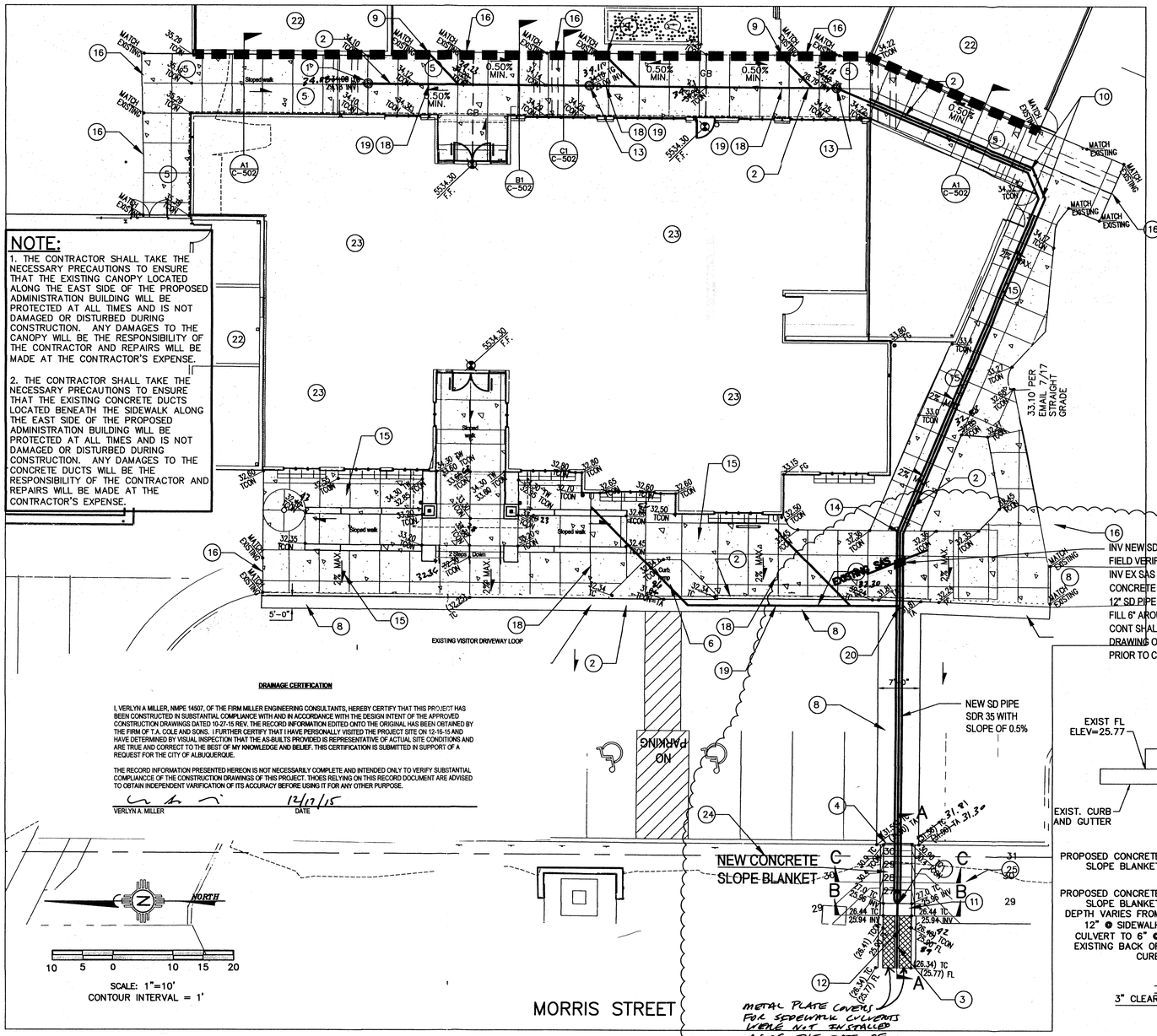

DRAINAGE CERTIFICATION

I, VERLYN A MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 10-27-15 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 12-16-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

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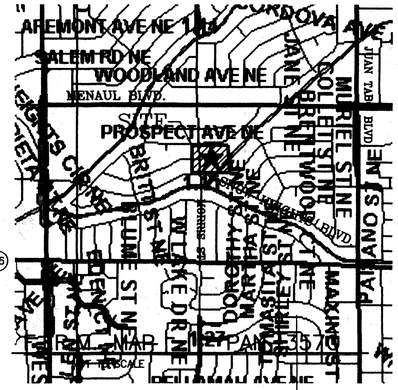
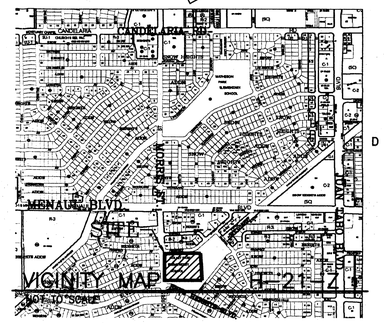
VERLYN A. MILLER — DATE 12/17/15





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LAND DEVELOPMENT SECTION

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VERLYN A. MILLER
14507
REGISTERED PROFESSIONAL ENGINEER
REV 10/27/15

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

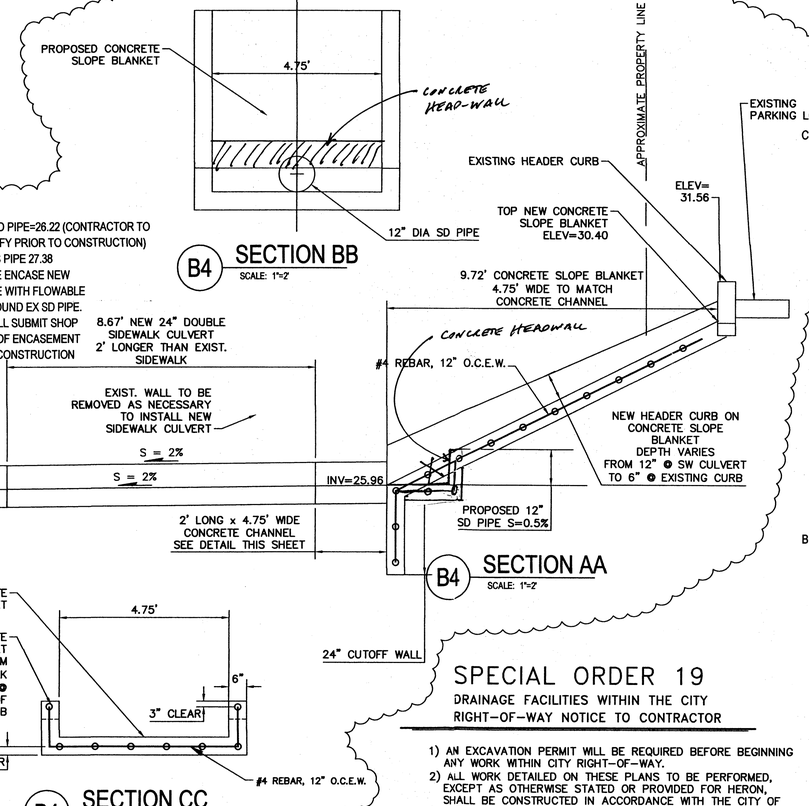
LEGEND:

(35.25) TCON	EXISTING SPOT ELEVATION
ELEV. FG	SPOT ELEVATION
TC	TOP OF CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TW	TOP OF WALL
BW	BOTTOM OF WALL
TCON	TOP OF CONCRETE
TS	TOP OF SIDEWALK
FG	FINISH GRADE
	SWALE
	HIGH POINT
5120	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	DRAINAGE FLOW ARROW

KEYED NOTES:

1. NEW 18"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
2. NEW 12"ø STORM DRAIN PIPE, SLOPE=0.50%.
3. NEW DOUBLE 24" WIDE SIDEWALK CULVERT PER CITY OF ALBUQUERQUE STANDARD DRAWING #2236. COVER SHALL EXTEND 24" PAST EXIST. SIDEWALK. CONTRACTOR SHALL TACK WELD THE BOLTS AT THE PLATE.
4. ASPHALT/CURB AND GUTTER REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT/CURB AND GUTTER TO A CLEAN STRAIGHT EDGE. REPLACE AND MATCH TO EXISTING SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
5. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SECTIONS. SLOPE PER PLANS AND DETAILS ON SHEET C-502.
6. NEW HANDICAP RAMP. SEE ARCHITECTURAL SHEETS FOR DETAIL.
7. OUTFALL OF NEW 12" STORM DRAIN PIPE. INV.= 25.96
8. ASPHALT REMOVAL AND REPLACEMENT AS REQUIRED FOR CONCRETE SIDEWALK INSTALLATION. CONTRACTOR SHALL SAWCUT ASPHALT TO A CLEAN STRAIGHT EDGE. NEW ASPHALT SECTION SHALL MATCH EXISTING ASPHALT SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
9. CONNECT EXISTING DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
10. NEW 12"X12"X45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
11. NEW 4'-9" WIDE CONCRETE CHANNEL. SEE SHEET C-502 FOR DETAIL.
12. NEW WALL CUT, AS NECESSARY TO INSTALL DRAINAGE COMPONENTS AS SHOWN ON THIS SHEET. REMOVE AND DISPOSE OF CONCRETE.
13. NEW 12"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW 12"X12"X22.5° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
15. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SIDEWALK DETAILS. SLOPE PER PLANS AND AS INDICATED ON SHEET C-502.
16. SAWCUT EXISTING CONCRETE SIDEWALK TO A CLEAN STRAIGHT EDGE. MATCH EXISTING ELEVATIONS AND PROVIDE SEALED CONSTRUCTION JOINT AT THE INTERFACE.
17. CONNECT NEW DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
18. NEW 6"ø STORM DRAIN PIPE. SLOPE = 1.00%
19. NEW 6"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
20. NEW 12"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
21. NEW 6"X12" ELBOW. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
22. EXISTING BUILDING TO REMAIN.
23. EXISTING BUILDING TO BE EXPANDED AND RENOVATED.
24. APPARENT RIGHT OF WAY/PROPERTY LINE.
25. CONTRACTOR SHALL REMOVE AND REINSTALL LANDSCAPING AS NECESSARY TO INSTALL NEW DRAINAGE IMPROVEMENTS. CONTRACTOR SHALL REUSE EXISTING LANDSCAPING MATERIAL.

A1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'



SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRUGH UPDATE #7 AMENDMENT 1.
3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 250-1990, FOR LOCATION OF EXISTING UTILITIES.
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 TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 - HOUR BASIS.

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date: 12-13-13	
drawn by: JAL	
checked by: RAL	
file name: 08-007_C-101A.dwg	
revisions:	

C-101AR
RFI 56

project no. 08-007

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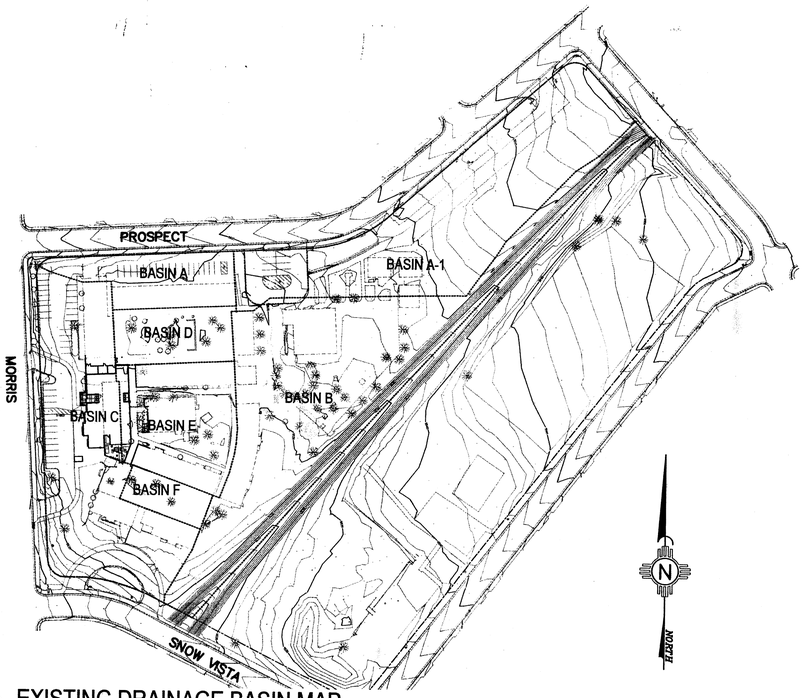
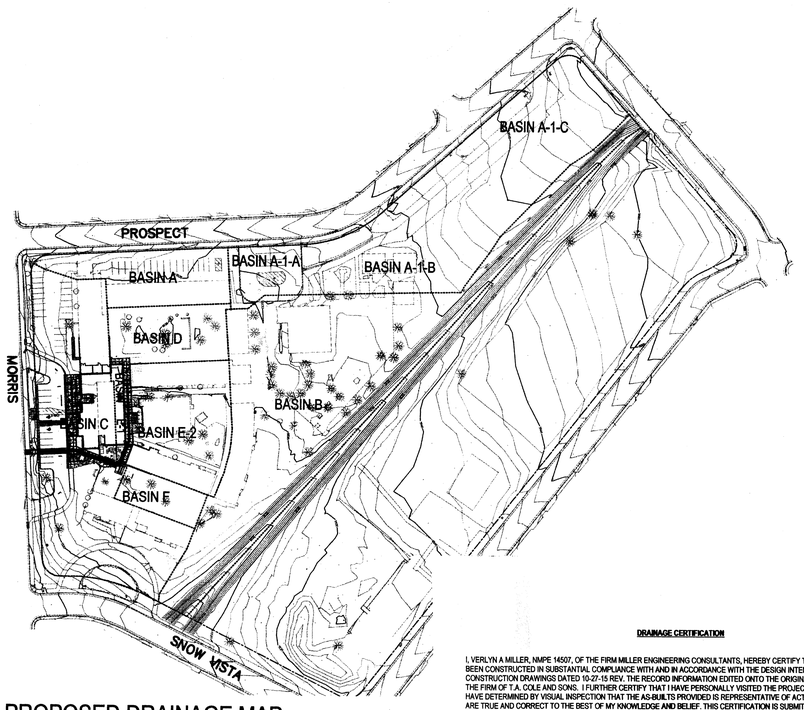
APS PROJECT NO: 0240.0005



C1 EXISTING DRAINAGE BASIN MAP
SCALE: 1" = 100'



A1 PROPOSED DRAINAGE MAP
SCALE: 1" = 100'

SITE LOCATION

COLLET PARK ELEMENTARY IS LOCATED AT 2100 MORRIS ST. N.E. IN ALBUQUERQUE, NM. THE SCHOOL BOUNDARY IS IRREGULAR AND BOUNDED BY PROSPECT AVENUE TO THE NORTH, MORRIS STREET TO THE WEST, SNOW VISTA BOULEVARD TO THE SOUTH AND ON THE EAST BY GRETTA STREET AND MARTHA STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS DEVELOPED WITH ELEMENTARY SCHOOL INFRASTRUCTURE INCLUDING CLASS ROOM BUILDINGS, PAVED PARKING LOTS, AND PLAYGROUNDS. A MASTER GRADING AND DRAINAGE PLAN WAS APPROVED IN 1994. THE PROPERTY WAS DIVIDED INTO NINE BASINS, WHICH ARE ALPHABETICALLY IDENTIFIED. SINCE IMPROVEMENTS ARE WITHIN BASIN C AND E-1, THIS REPORT FOCUSES ONLY ON THE HYDORLOGIC NET DIFFERENCES IN THESE BASINS. BASIN C DRAINS TO MORRIS STREET VIA SURFACE FLOWS. A PORTION OF BASIN E DRAINS TO MORRIS STREET VIA SURFACE FLOWS AND A PORTION OF BASIN E DRAINS TO PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C AND E.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A SINGLE, ONE STORY BUILDING AND THE RENOVATION OF EXISTING BUILDING STRUCTURES INCLUDING NEW CONCRETE SIDEWALKS AND HANDICAP ACCESS RAMPS FROM THE LOOP DROP OFF LANE AND GRADING. THE IMPROVEMENTS HAVE DIVIDED EXISTING DRAINAGE BASIN E INTO TWO SEPERATE PROPOSED DRAINAGE BASINS AS SHOWN ON PROPOSED BASIN MAP ON THIS SHEET. THE MAJORITY OF THE STORM WATER FLOW GENERATED FROM THE DEVELOPMENT WITHIN BASIN C WILL CONTINUE TO DRAIN TO MORRIS STREET VIA SURFACE FLOW. THE STORM WATER FLOW GERNERATED WITHIN BASIN E-1 WILL BE COLLECTED BY A NEW STORM DRAIN SYSTEM. THIS FLOW WILL THEN BE CONVEYED TO MORRIS STREET. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C, E-1 AND E-2.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN C BY 0.015 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.13 CFS. RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN E BY 0.0 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.0 CFS. THE MAJORITY OF THE RUNOFF DEVELOPED FROM THE PROPOSED IMPROVEMENTS WILL DISCHARGE TO MORRIS STREET VIA SURFACE FLOW FROM BASIN C AND VIA THE NEW STORM DRAINAGE SYSTEM FROM BASIN E-1. THERE ARE NOT ANY IMPROVEMENTS BEING DONE IN PROPOSED BASIN E-2. THESE CALCULATIONS TAKE INTO CONSIDERATION PARKING LOT IMPROVEMENTS SHOWN ON PLANS BY WILSON AND COMPANY STAMP DATED 9-17-2010 (H21/D010) AS EXISTING CONDITIONS.

GENERAL NOTES:

1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY JEFF MORTENSEN AND ASSOCIATES. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERFICATION OF THIS INFORMATION.
2. PROJECT BENCHMARK IS ACS BRASS DISC STAMPED "2-H21", SET ON TOP OF A CONCRETE POST FLUSH WITH TOP OF CURB, LOCATED AT THE INTERSECTION OF MENAUL BOULEVARD N.E. AND JUAN TABO BOULEVARD N.E.
   ELEVATION = 5605.234 FEET (NAVD 1988)

   TEMPORARY BENCHMARK #1 IS A P.K. NAIL AT TOP BACK OF CURB, LOCATED ON THE SOUTHWEST CORNER OF PROSPECT AVENUE N.E. AND MORRIS STREET N.E., ELEVATION = 5528.32 FEET (NAVD 1988)
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
6. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
7. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
8. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X. DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 357G.
10. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
11. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
12. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY. (FUGITIVE DUST PERMIT)
14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES, INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT.
16. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
18. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
19. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
20. THE CONTRACTOR SHALL SUMBIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
21. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THECITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
22. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY CONFLICTS BETWEEN EXISTING OR PROPOSED UTILITIES ON THIS PROJECT PRIOR TO CONSTRUCTION.

SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRUGH UPDATE #7 AMENDMENT 1.
3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
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 TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 - HOUR BASIS.

DRAINAGE DATA

Percipitation Zone 4 - 10-year Storm P(360) = 1.93 in P(1440) = 2.44 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	1.38	0.139	0.175	3.72
E	0.62	0.00	0.00	0.13	0.49	1.49	0.077	0.097	2.04
Total	**1.83**								**5.77**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	1.45	0.146	0.186	3.84
E-1	0.07	0.00	0.00	0.00	0.07	1.69	0.010	0.013	0.25
E-2	0.55	0.00	0.00	0.13	0.42	1.46	0.067	0.085	1.79
Total	**1.83**								**5.88**

Percipitation Zone 4 - 100-year Storm P(360) = 2.92 in P(1440) = 3.65 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	2.24	0.226	0.280	5.67
E	0.62	0.00	0.00	0.13	0.49	2.39	0.124	0.154	3.06
Total	**1.83**								**8.72**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	2.33	0.235	0.295	5.80
E-1	0.07	0.00	0.00	0.00	0.07	2.64	0.015	0.020	0.37
E-2	0.55	0.00	0.00	0.13	0.42	2.36	0.108	0.134	2.69
Total	**1.83**								**8.86**

DRAINAGE CERTIFICATION

I, VERLYN A MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 10-27-15 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 12-16-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

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VERLYN A. MILLER — DATE 12/17/15

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VERLYN A. MILLER NEW MEXICO 14307 REGISTERED PROFESSIONAL ENGINEER 12/17/15

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

DRAINAGE REPORT AND CALCULATION

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:

C-102A

project no. 08-007

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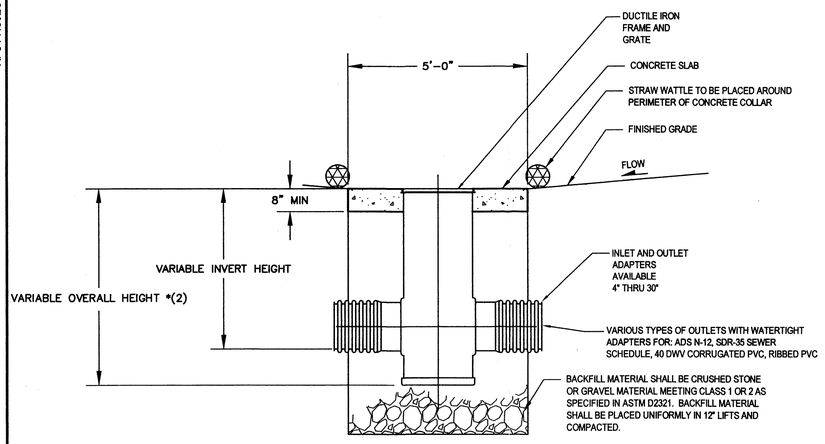

C1 DRAIN BASIN CONCRETE COLLAR AND STRAW WATTLE
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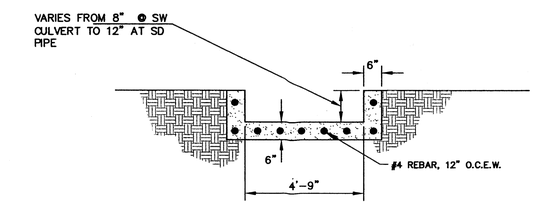

D3 CONCRETE CHANNEL
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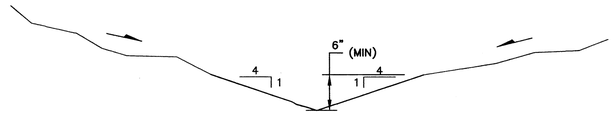
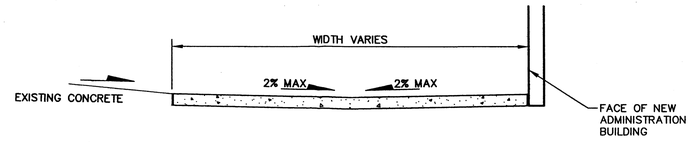
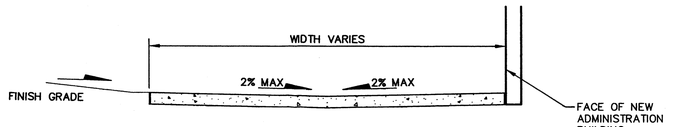


C3 TYPICAL EARTHEN SWALE
SCALE: NOT TO SCALE



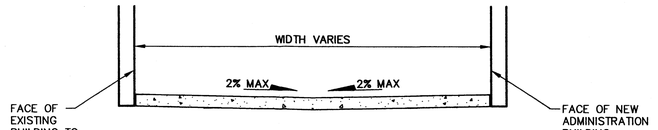
D4 TYPICAL SIDEWALK SECTION 'C1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



C4 TYPICAL SIDEWALK SECTION 'B1'
SCALE: NOT TO SCALE

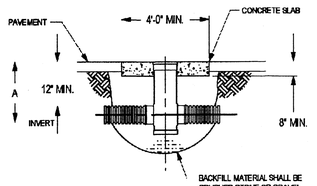
SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



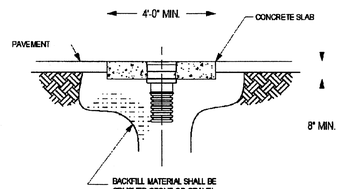
B4 TYPICAL SIDEWALK SECTION 'A1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.

2812AG__N 2815AG__N
12" AND 15" DRAIN BASIN



2712AG__N 2715AG__N
12" AND 15" INLINE DRAIN



PIPE SIZE	A (ADS N-12 PIPE)
4"	17.00"
6"	19.00"
8"	21.00"
10"	24.00"
12"	26.00"
15"	29.00"

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DRAWN BY AWA	MATERIAL	Nyloplast	3128 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2499 www.nyloplast-us.com
DATE 16AUG00			
APPD BY CJA	PROJECT NO./NAME		
DATE 18FEB01	DRAIN BASIN / INLINE DRAIN		
DWG SIZE A	SCALE 1:100 SHEET 1 OF 1		

A1 NYLOPLAST DRAIN BASIN DETAIL
SCALE: NOT TO SCALE

DRAINAGE CERTIFICATION

I, VERLYN A. MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 10-27-15 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 12-16-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

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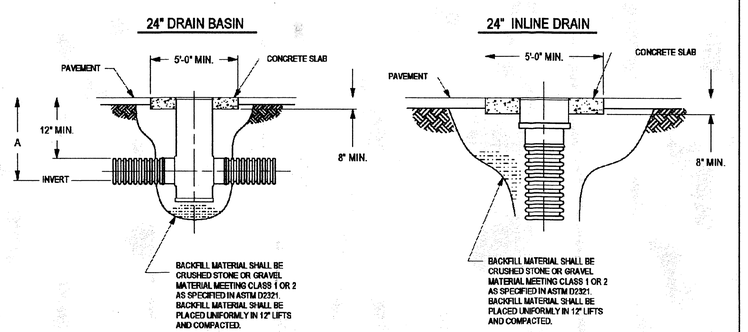
VERLYN A. MILLER — DATE 12/17/15



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DRAWN BY AWA	MATERIAL	Nyloplast	3128 VERONA AVE BUFORD, GA 30518 PHN (770) 932-2443 FAX (770) 932-2499 www.nyloplast-us.com
DATE 16AUG00			
APPD BY CJA	PROJECT NO./NAME	TITLE	
DATE 18FEB01	DRAIN BASIN / INLINE DRAIN	24" H-20 (HEAVY TRAFFIC) INSTALLATION	
DWG SIZE A	SCALE 1:100 SHEET 1 OF 1	DWG NO. 7095-110-003	REV D

NOTE: DRAIN BASIN COVERS SHALL BE ADA COMPLIANT AND PEDESTRIAN RATED.

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VERLYN A. MILLER NEW MEXICO 14507 REGISTERED PROFESSIONAL ENGINEER 12/17/15

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

MISCELLANEOUS DETAILS

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:
1 X
2 X
3 X

C-502

project no. 08-007

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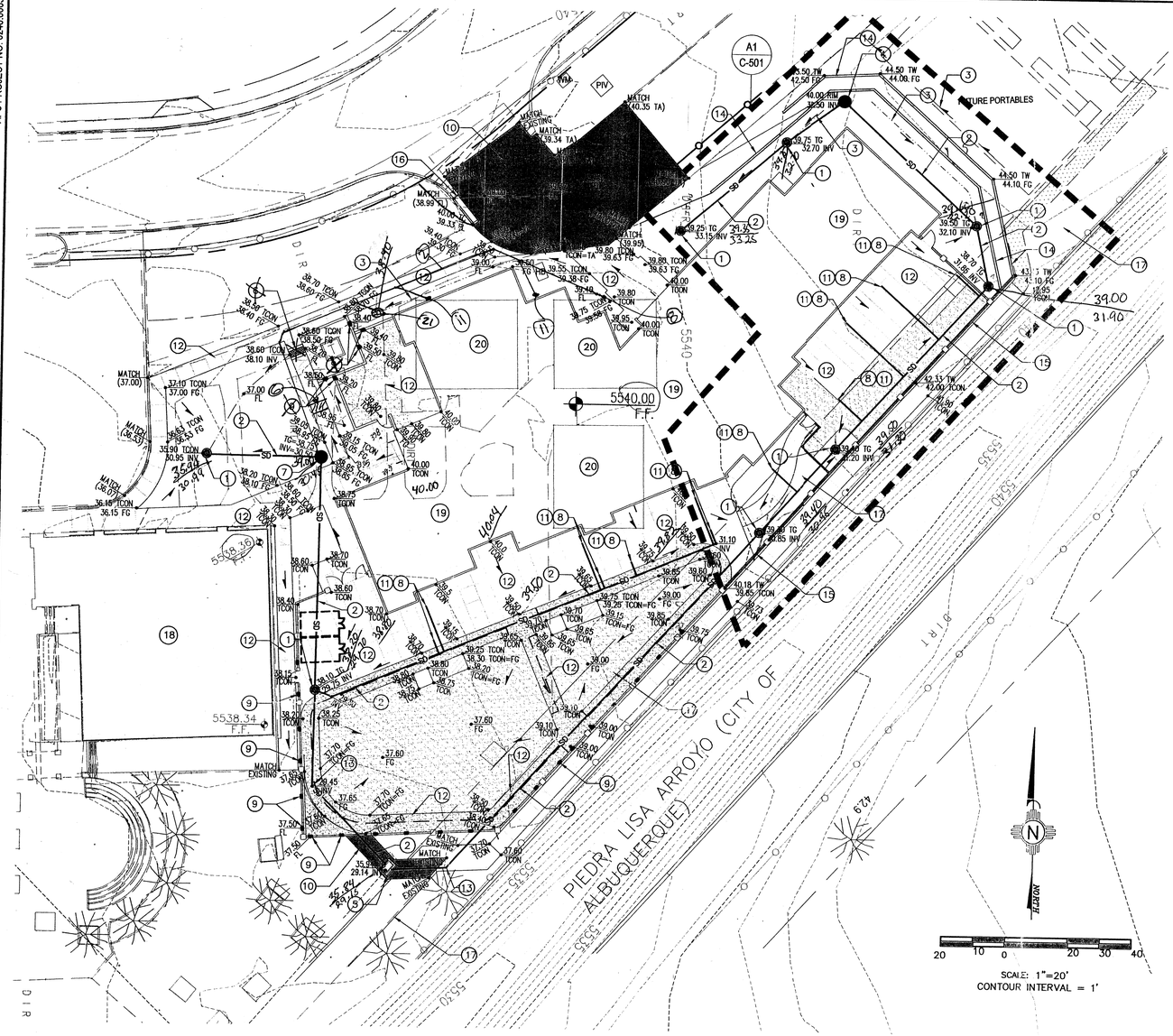
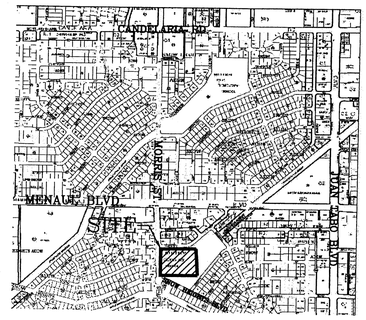


F.I.R.M. MAP PAN-357G
NOT TO SCALE



VICINITY MAP H-21-Z
NOT TO SCALE

LEGEND:

38.00 FG	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)	GB	GRADE BREAK
MATCH (95.19)	MATCH EXISTING ELEVATIONS		SWALE
TCON	TOP OF CONCRETE	SD	STORM DRAIN LINE
FL	FLOW LINE, CURB		
INV	INVERT	5895	PROPOSED MAJOR CONTOUR
FG	FINISH GRADE		PROPOSED MINOR CONTOUR
TW	TOP OF WALL	5895	EXISTING MAJOR CONTOUR
TC	TOP OF CURB		EXISTING MINOR CONTOUR
TG	TOP OF GRATE		

PROPOSED DRAIN BASIN

PROPOSED MANHOLE

FLOW ARROW

KEYED NOTES:

1. NEW 18" NYLOPLAST DRAIN BASIN. SEE SHEET C-502 FOR DETAIL.
2. NEW 12" ø STORM DRAIN LINE. SEE SHEET C-501 FOR HORIZONT/L CONTROL.
3. NEW EARTHEN SWALE. SEE SHEET C-501 FOR DETAIL.
4. NEW 4'-0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C-501 FOR HORIZONTAL CONTROL. RIM ELEV.=39.00 INV=32.40
5. EXISTING DROP INLET, CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. TG=35.94 INV=29.14
6. NEW 2' WIDE SIDEWALK CULVERT PER COA STANDARD DETAIL #2236. TG=38.60 INV=38.10
7. NEW 4'-0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C-501 FOR HORIZONTAL CONTROL. RIM ELEV.=38.60 INV=30.50
8. CONNECT ROOF DRAIN DOWNSPOUT TO NEW 6" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
9. PROVIDE WALL OPENING AT FINISHED GRADE TO ALLOW FOR DRAINAGE. TYPICAL 10' O.C.
10. ASPHALT, CURB AND GUTTER OR CONCRETE PAVING REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT, CONCRETE PAVING OR CURB AND GUTTER, TO A CLEAN STRAIGHT EDGE. REPLACE SECTIONS AND MATCH TO EXISTING SECTIONS OF ASPHALT, CONCRETE, BASE COURSE, AND/OR SUBGRADE PREPARATION. SEE GEOTECHNICAL REPORT FOR MINIMUM REQUIREMENTS. REMOVE AND REPLACE ANY AREAS OF DISTURBED LANDSCAPE.
11. CONNECT NEW 6" ROOF DRAIN CONNECTION TO NEW 12" STORM DRAIN LINE WITH TEE OR ELBOW FITTING. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
12. NEW CONCRETE PAVING OR CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR DETAILS.
13. NEW 12"X12", 45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW TIERED RETAINING WALL. SEE ARCHITECTURAL SHEET AS-501K FOR DETAILS.
15. NEW TOT LOT RETAINING WALL. SEE ARCHITECTURAL SHEET AS-501K FOR DETAILS.
16. NEW CURB AND GUTTER PER COA STANDARD DETAIL #2415A.
17. REVOCABLE PERMIT MADE AND ENTERED ON 23 SEPTEMBER, 2013 BY AND BETWEEN THE CITY OF ALBUQUERQUE AND ALBUQUERQUE SCHOOL DISTRICT NO. 12. RECORDED ON 21 OCTOBER, 2013 ON DOCUMENT NO. 2013115813 IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY.
18. EXISTING BUILDING TO REMAIN.
19. NEW PROPOSED BUILDING.
20. EXISTING PORTABLE BUILDING TO BE REMOVED BY OTHERS.
21. NEW NYLOPLAST DRAIN BASIN TG = 38.90 INV = 31.38

DRAINAGE CERTIFICATION

I, VERLYN A. MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, I HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 1/27/14 REV. THE RECORD INFORMATION EDITED CITO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VIS ITED THE PROJECT SITE ON 3-11-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTA TIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATI ON IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

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VERLYN A. MILLER — DATE 3/13/15

SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

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A1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 20'

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(505)888-3900 (FAX)
WWW.MECNM.COM

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LAND DEVELOPMENT SECTION

VIGIL & ASSOCIATES
ARCHITECTURAL GROUP, P.C.
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www.VA-architects.com

VERLYN A. MILLER — NEW MEXICO — 14507 — REGISTERED PROFESSIONAL ENGINEER — 3/13/15

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

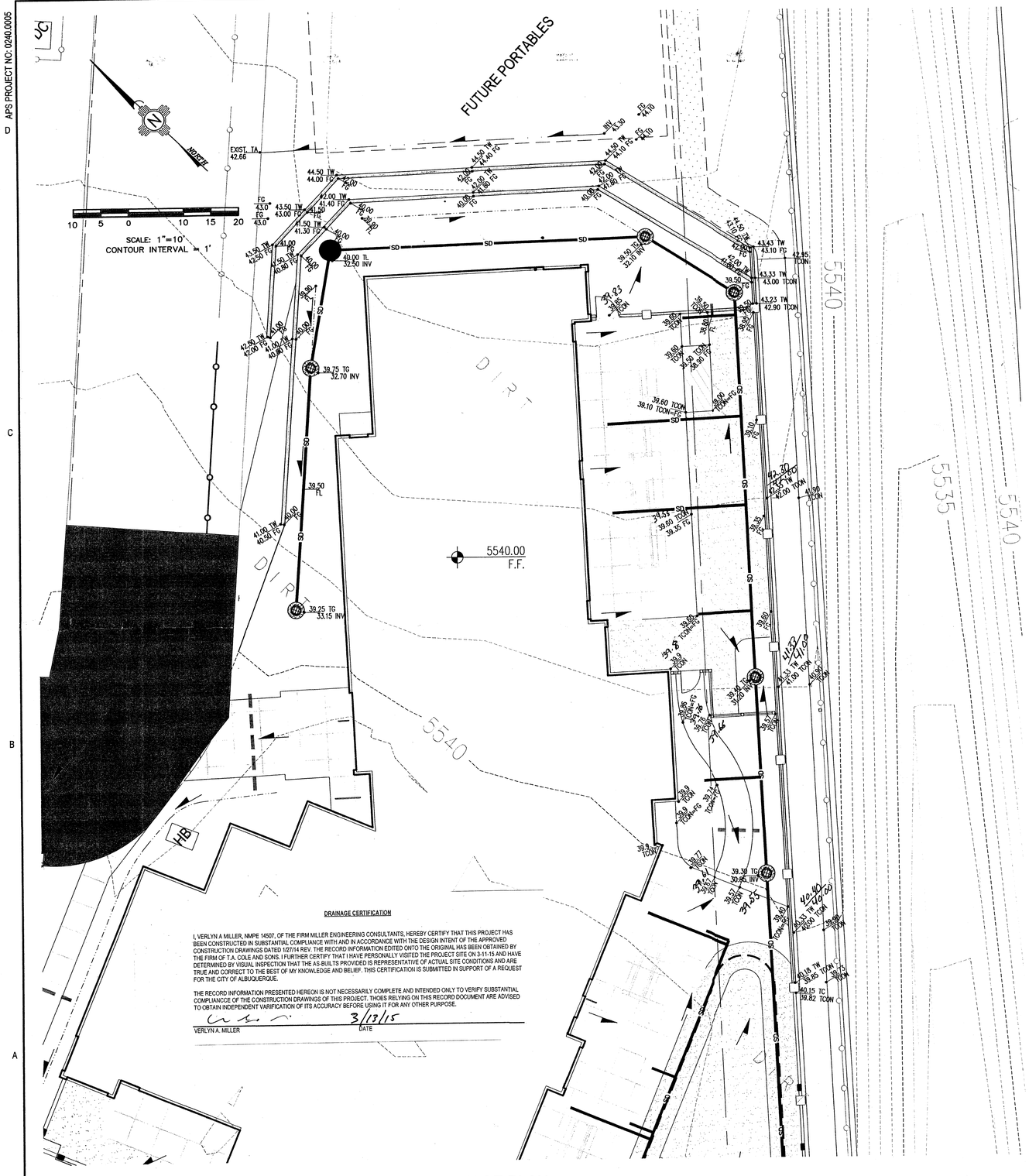
date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101K.dwg
revisions:
1 9-18-2013
2 COA HYDROLOGY SUBMIT
3

C-101K

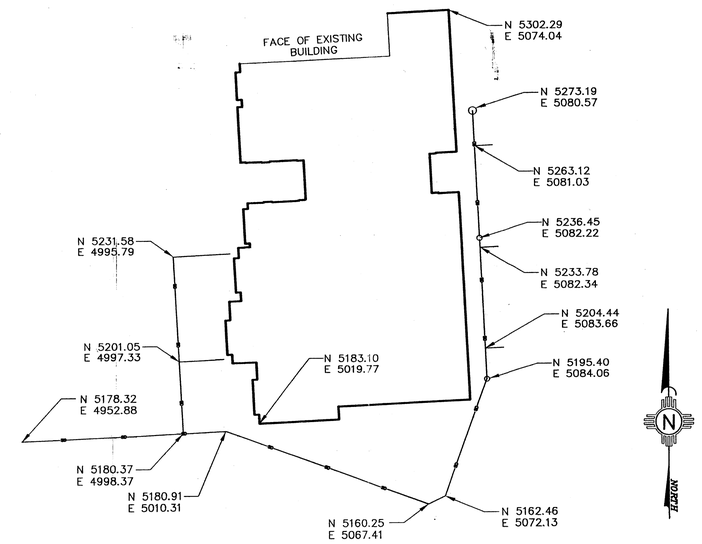
project no. 08-007

T:\Clients\VIGIL & ASSOCIATES\Collett Park ES\DRAWINGS\KINDERGARTEN\SHEETS\08-007_C101_GRAD.dwg, 1/27/2014 10:59:09 AM, \\SERVER\HPDesign_11

APS PROJECT NO: 0240.0005

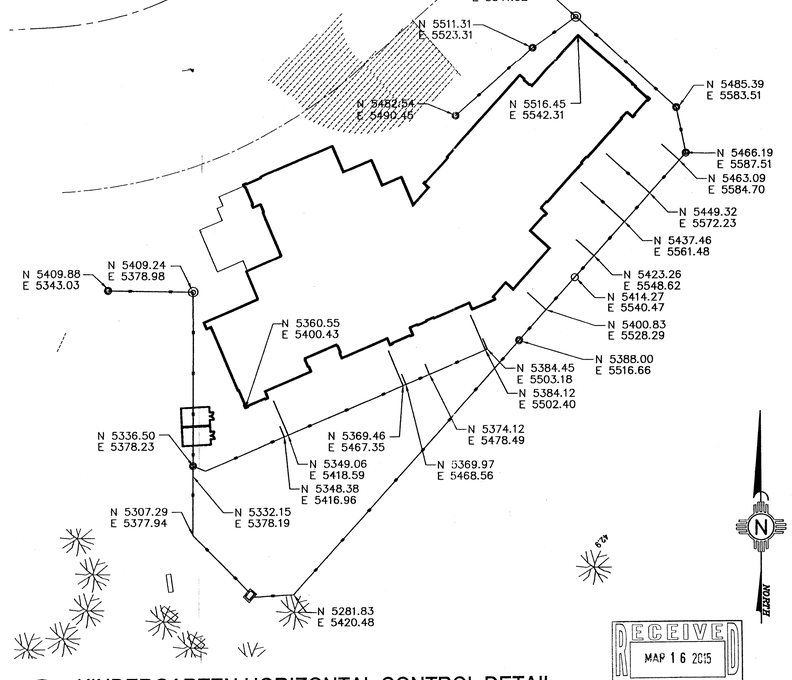


A1 KINDERGARTEN ENLARGED GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'



D4 ADMINISTRATION HORIZONTAL CONTROL DETAIL
SCALE: 1" = 20'

NOTES
1. NORTHING AND EASTING COORDINATES ARE FOR THE EXTERIOR FACE OF THE BUILDING.
2. PROJECT BENCHMARKS WILL BE MAKE AVAILABLE TO CONTRACTOR UPON REQUEST.



A4 KINDERGARTEN HORIZONTAL CONTROL DETAIL
SCALE: 1" = 30'

NOTES
1. NORTHING AND EASTING COORDINATES ARE FOR THE EXTERIOR FACE OF THE BUILDING.
2. PROJECT BENCHMARKS WILL BE MAKE AVAILABLE TO CONTRACTOR UPON REQUEST.

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VERLYN A. MILLER
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11-11-14

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

MISCELLANEOUS DETAILS

date: 12-13-13
drawn by: JAL
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file name: 08-007_C-101A.dwg
revisions:
1 9-18-2013
2 Revisions to COA Hydrology
3

C-501

project no. 08-007

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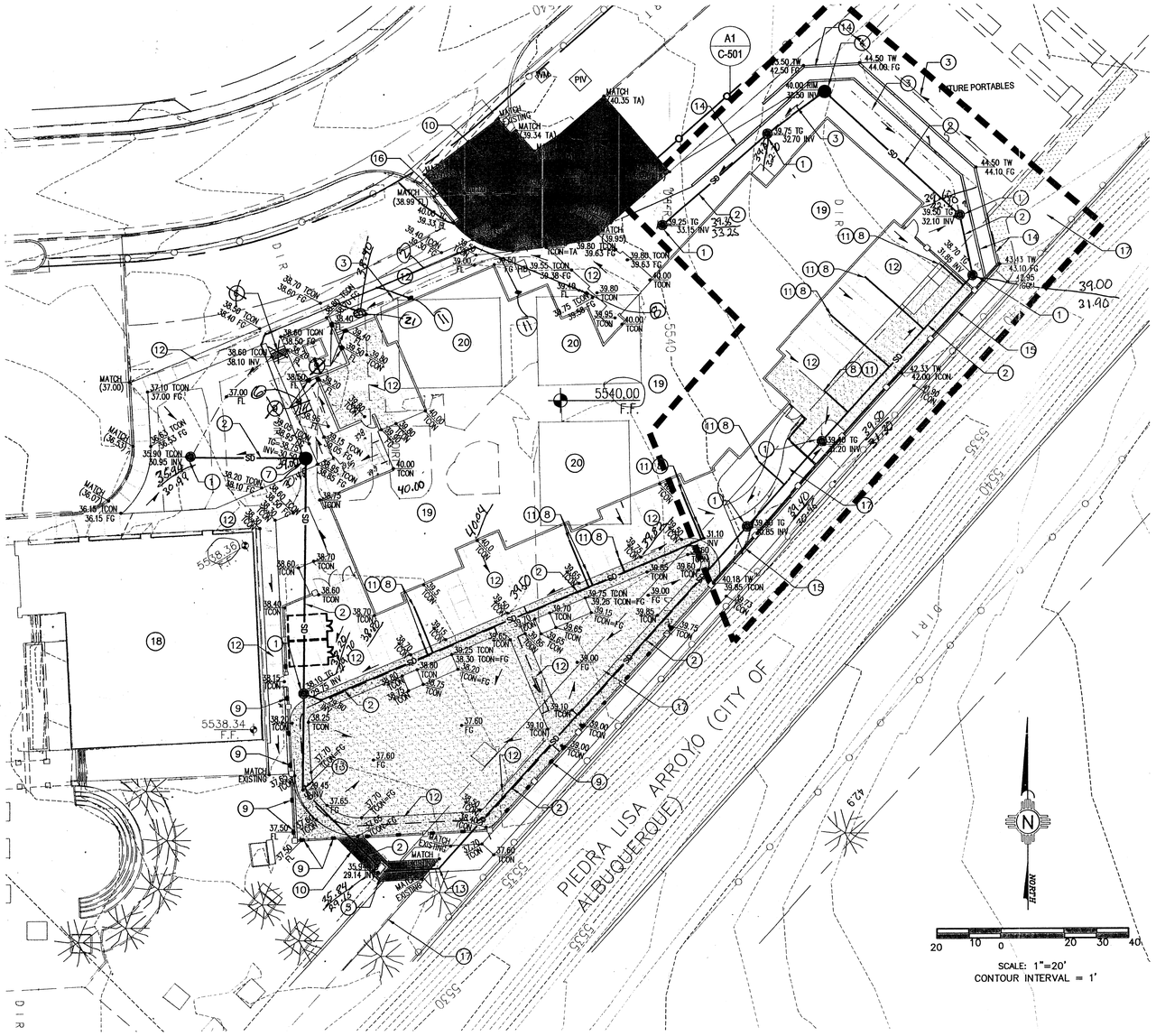
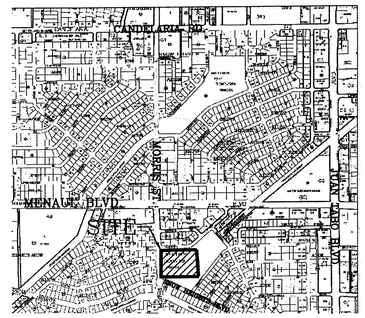
APS PROJECT NO: 0240.0005



F.I.R.M. MAP PAN-357G

NOT TO SCALE



VICINITY MAP H-21-Z

NOT TO SCALE

LEGEND:

38.00 FG	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)	GB	GRADE BREAK
MATCH (95.19)	MATCH EXISTING ELEVATIONS		SWALE
TCON	TOP OF CONCRETE	SD	STORM DRAIN LINE
FL	FLOW LINE, CURB		
INV	INVERT	5895	PROPOSED MAJOR CONTOUR
FG	FINISH GRADE		PROPOSED MINOR CONTOUR
TW	TOP OF WALL	5895	EXISTING MAJOR CONTOUR
TC	TOP OF CURB		EXISTING MINOR CONTOUR
TG	TOP OF GRATE		

PROPOSED DRAIN BASIN

PROPOSED MANHOLE

FLOW ARROW

KEYED NOTES:

1. NEW 18" NYLOPLAST DRAIN BASIN. SEE SHEET C-502 FOR DETAIL.
2. NEW 12" ø STORM DRAIN LINE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
3. NEW EARTHEN SWALE. SEE SHEET C-501 FOR DETAIL.
4. NEW 4'-0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C-501 FOR HORIZONTAL CONTROL. RIM ELEV.=39.00 INV=32.40
5. EXISTING DROP INLET, CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. TG=35.94 INV=29.14
6. NEW 2' WIDE SIDEWALK CULVERT PER COA STANDARD DETAIL #2236. TG=38.60 INV=38.10
7. NEW 4'-0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C-501 FOR HORIZONTAL CONTROL. RIM ELEV.=38.60 INV=30.50
8. CONNECT ROOF DRAIN DOWNSPOUT TO NEW 6" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
9. PROVIDE WALL OPENING AT FINISHED GRADE TO ALLOW FOR DRAINAGE. TYPICAL 10' O.C.
10. ASPHALT, CURB AND GUTTER OR CONCRETE PAVING REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT, CONCRETE PAVING OR CURB AND GUTTER, TO A CLEAN STRAIGHT EDGE. REPLACE SECTIONS AND MATCH TO EXISTING SECTIONS OF ASPHALT, CONCRETE, BASE COURSE, AND/OR SUBGRADE PREPARATION. SEE GEOTECHNICAL REPORT FOR MINIMUM REQUIREMENTS. REMOVE AND REPLACE ANY AREAS OF DISTURBED LANDSCAPE.
11. CONNECT NEW 6" ROOF DRAIN CONNECTION TO NEW 12" STORM DRAIN LINE WITH TEE OR ELBOW FITTING. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
12. NEW CONCRETE PAVING OR CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR DETAILS.
13. NEW 12"X12", 45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW TIERED RETAINING WALL. SEE ARCHITECTURAL SHEET AS-501K FOR DETAILS.
15. NEW TOT LOT RETAINING WALL. SEE ARCHITECTURAL SHEET AS-501K FOR DETAILS.
16. NEW CURB AND GUTTER PER COA STANDARD DETAIL #2415A.
17. REVOCABLE PERMIT MADE AND ENTERED ON 23 SEPTEMBER, 2013 BY AND BETWEEN THE CITY OF ALBUQUERQUE AND ALBUQUERQUE SCHOOL DISTRICT NO. 12. RECORDED ON 21 OCTOBER, 2013 ON DOCUMENT NO. 2013115813 IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY.
18. EXISTING BUILDING TO REMAIN.
19. NEW PROPOSED BUILDING.
20. EXISTING PORTABLE BUILDING TO BE REMOVED BY OTHERS.

21 NEW NYLOPLAST DRAIN BASIN
TG = 38.90
INV = 31.38

A1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'

DRAINAGE CERTIFICATION

I, VERLYN A MILLER, NMPE 14507, OF THE FIRM MILLER ENGINEERING CONSULTANTS, HEREBY CERTIFY THAT THIS PROJECT HAS BEEN CONSTRUCTED IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE APPROVED CONSTRUCTION DRAWINGS DATED 1/27/14 REV. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL HAS BEEN OBTAINED BY THE FIRM OF T.A. COLE AND SONS. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON 3-11-15 AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE AS-BUILTS PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR THE CITY OF ALBUQUERQUE.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE CONSTRUCTION DRAWINGS OF THIS PROJECT. THOES RELYING ON THIS RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

VERLYN A. MILLER — DATE 3/13/15

SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRUGH UPDATE #7 AMENDMENT 1.
3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
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 TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 – HOUR BASIS.

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VERLYN A. MILLER NEW MEXICO 14507 REGISTERED PROFESSIONAL ENGINEER 1/27/14

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

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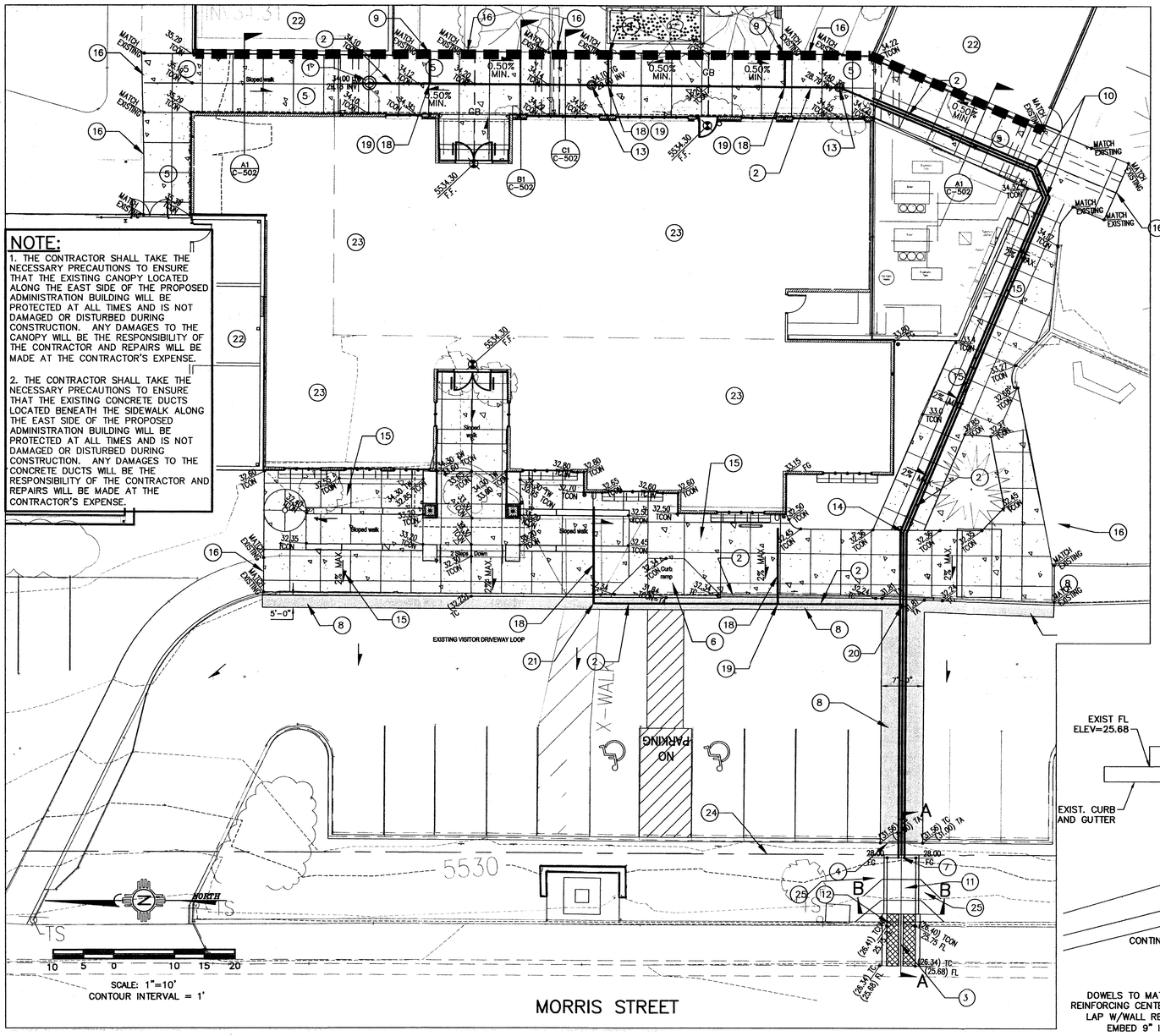
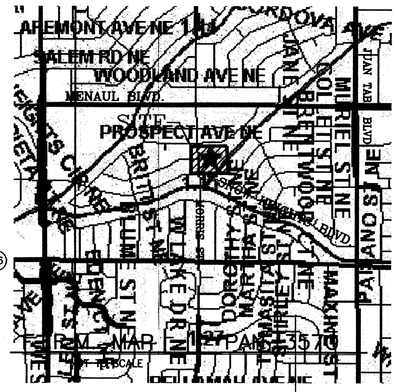
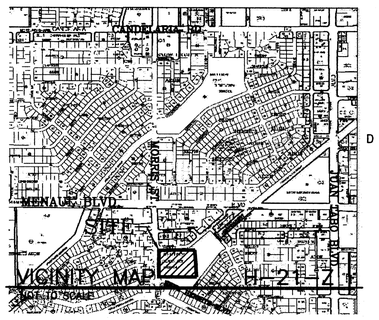
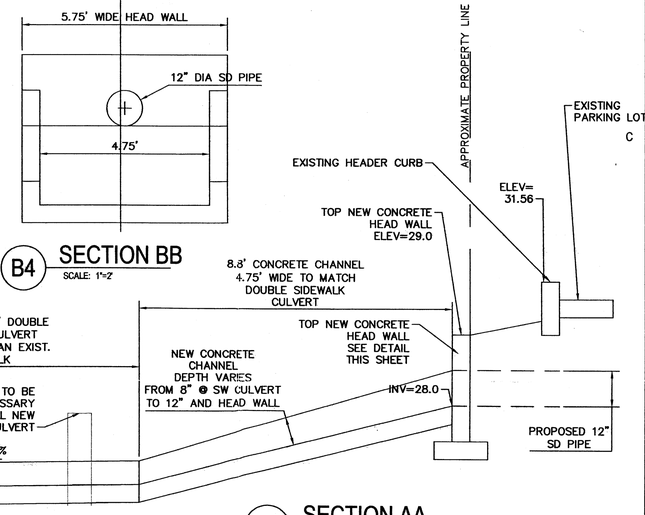
APS PROJECT NO: 0240.0005



A1 GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'

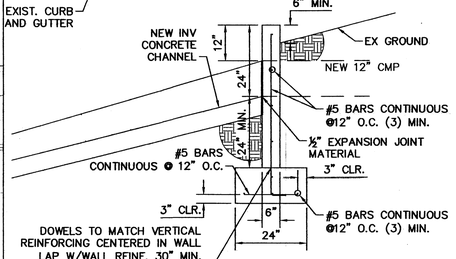






B4 SECTION BB
SCALE: 1"=2'

B4 SECTION AA
SCALE: 1"=2'



A4 RETAINING WALL DETAIL
SCALE: 1"=2'

LEGEND:

(35.25) TCON	EXISTING SPOT ELEVATION
ELEV. FG	SPOT ELEVATION
TC	TOP OF CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TW	TOP OF WALL
BW	BOTTOM OF WALL
TCON	TOP OF CONCRETE
TS	TOP OF SIDEWALK
FG	FINISH GRADE
	SWALE
	HIGH POINT
5120	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	DRAINAGE FLOW ARROW

KEYED NOTES:

1. NEW 18"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
2. NEW 12"ø STORM DRAIN PIPE, SLOPE=0.50%.
3. NEW DOUBLE 24" WIDE SIDEWALK CULVERT PER CITY OF ALBUQUERQUE STANDARD DRAWING #2236. COVER SHALL EXTEND 24" PAST EXIST. SIDEWALK. CONTRACTOR SHALL TACK WELD THE BOLTS AT THE PLATE.
4. ASPHALT/CURB AND GUTTER REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT/CURB AND GUTTER TO A CLEAN STRAIGHT EDGE. REPLACE AND MATCH TO EXISTING SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
5. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SECTIONS. SLOPE PER PLANS AND DETAILS ON SHEET C-502.
6. NEW HANDICAP RAMP. SEE ARCHITECTURAL SHEETS FOR DETAIL.
7. OUTFALL OF NEW 12" STORM DRAIN PIPE. INV.= 28.00
8. ASPHALT REMOVAL AND REPLACEMENT AS REQUIRED FOR CONCRETE SIDEWALK INSTALLATION. CONTRACTOR SHALL SAWCUT ASPHALT TO A CLEAN STRAIGHT EDGE. NEW ASPHALT SECTION SHALL MATCH EXISTING ASPHALT SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
9. CONNECT EXISTING DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
10. NEW 12"X12"X45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
11. NEW 4'-9" WIDE CONCRETE CHANNEL. SEE SHEET C-502 FOR DETAIL.
12. NEW WALL CUT, AS NECESSARY TO INSTALL DRAINAGE COMPONENTS AS SHOWN ON THIS SHEET. REMOVE AND DISPOSE OF CONCRETE.
13. NEW 12"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW 12"X12"X22.5° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
15. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SIDEWALK DETAILS. SLOPE PER PLANS AND AS INDICATED ON SHEET C-502.
16. SAWCUT EXISTING CONCRETE SIDEWALK TO A CLEAN STRAIGHT EDGE. MATCH EXISTING ELEVATIONS AND PROVIDE SEALED CONSTRUCTION JOINT AT THE INTERFACE.
17. CONNECT NEW DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
18. NEW 6"ø STORM DRAIN PIPE. SLOPE = 1.00%
19. NEW 6"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
20. NEW 12"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
21. NEW 6"X12" ELBOW. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
22. EXISTING BUILDING TO REMAIN.
23. EXISTING BUILDING TO BE EXPANDED AND RENOVATED.
24. APPARENT RIGHT OF WAY/PROPERTY LINE.
25. CONTRACTOR SHALL REMOVE AND REINSTALL LANDSCAPING AS NECESSARY TO INSTALL NEW DRAINAGE IMPROVEMENTS. CONTRACTOR SHALL REUSE EXISTING LANDSCAPING MATERIAL.

SPECIAL ORDER 19
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12/17/14

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

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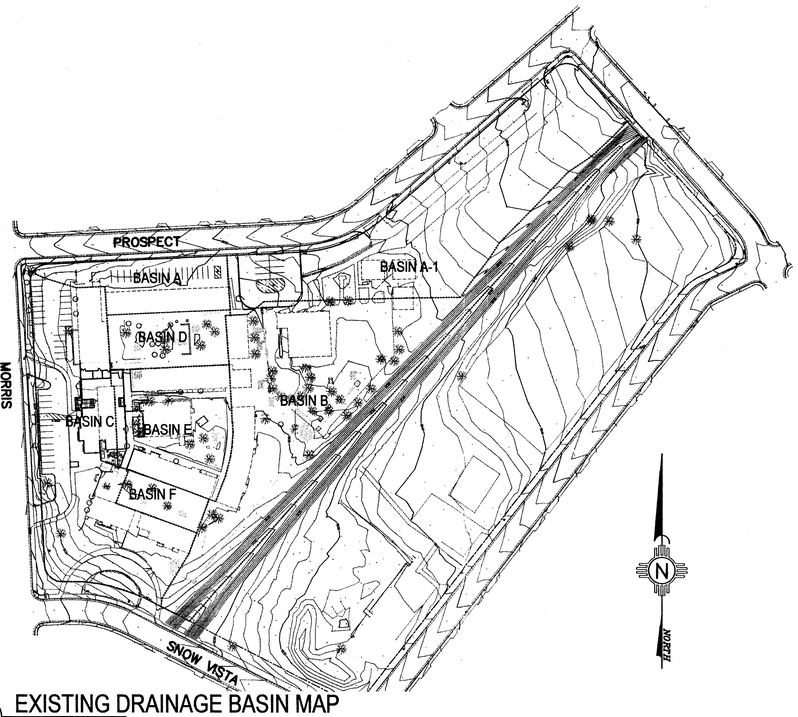
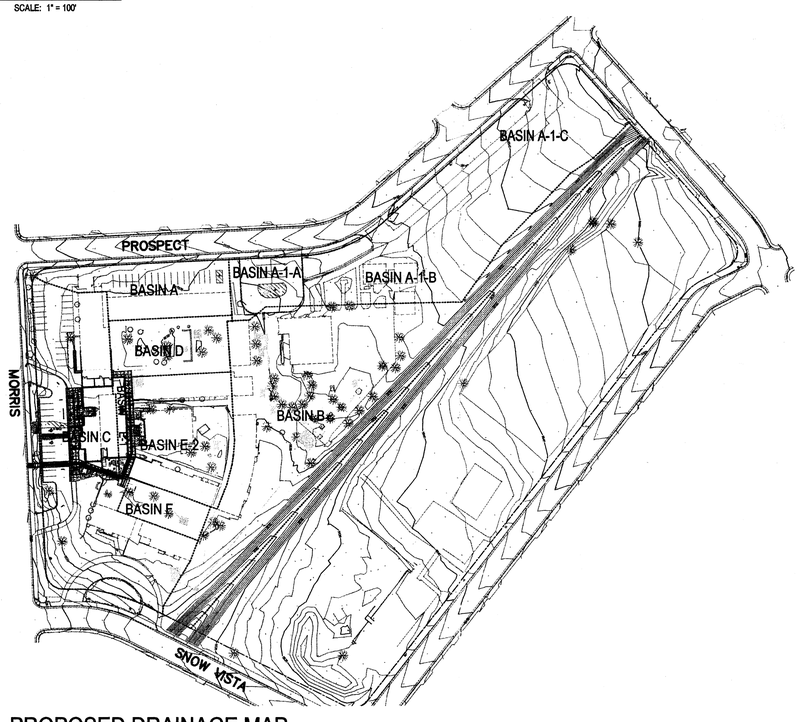


C1 EXISTING DRAINAGE BASIN MAP

SCALE: 1" = 100'



A1 PROPOSED DRAINAGE MAP

SCALE: 1" = 100'

SITE LOCATION

COLLET PARK ELEMENTARY IS LOCATED AT 2100 MORRIS ST. N.E. IN ALBUQUERQUE, NM. THE SCHOOL BOUNDARY IS IRREGULAR AND BOUNDED BY PROSPECT AVENUE TO THE NORTH, MORRIS STREET TO THE WEST, SNOW VISTA BOULEVARD TO THE SOUTH AND ON THE EAST BY GRETTA STREET AND MARTHA STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS DEVELOPED WITH ELEMENTARY SCHOOL INFRASTRUCTURE INCLUDING CLASS ROOM BUILDINGS, PAVED PARKING LOTS, AND PLAYGROUNDS. A MASTER GRADING AND DRAINAGE PLAN WAS APPROVED IN 1994. THE PROPERTY WAS DIVIDED INTO NINE BASINS, WHICH ARE ALPHABETICALLY IDENTIFIED. SINCE IMPROVEMENTS ARE WITHIN BASIN C AND E-1, THIS REPORT FOCUSES ONLY ON THE HYDORLOGIC NET DIFFERENCES IN THESE BASINS. BASIN C DRAINS TO MORRIS STREET VIA SURFACE FLOWS. A PORTION OF BASIN E DRAINS TO MORRIS STREET VIA SURFACE FLOWS AND A PORTION OF BASIN E DRAINS TO PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C AND E.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A SINGLE, ONE STORY BUILDING AND THE RENOVATION OF EXISTING BUILDING STRUCTURES INCLUDING NEW CONCRETE SIDEWALKS AND HANDICAP ACCESS RAMPS FROM THE LOOP DROP OFF LANE AND GRADING. THE IMPROVEMENTS HAVE DIVIDED EXISTING DRAINAGE BASIN E INTO TWO SEPERATE PROPOSED DRAINAGE BASINS AS SHOWN ON PROPOSED BASIN MAP ON THIS SHEET. THE MAJORITY OF THE STORM WATER FLOW GENERATED FROM THE DEVELOPMENT WITHIN BASIN C WILL CONTINUE TO DRAIN TO MORRIS STREET VIA SURFACE FLOW. THE STORM WATER FLOW GERNERATED WITHIN BASIN E-1 WILL BE COLLECTED BY A NEW STORM DRAIN SYSTEM. THIS FLOW WILL THEN BE CONVEYED TO MORRIS STREET. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C, E-1 AND E-2.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN C BY 0.015 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.13 CFS. RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN E BY 0.0 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.0 CFS. THE MAJORITY OF THE RUNOFF DEVELOPED FROM THE PROPOSED IMPROVEMENTS WILL DISCHARGE TO MORRIS STREET VIA SURFACE FLOW FROM BASIN C AND VIA THE NEW STORM DRAINAGE SYSTEM FROM BASIN E-1. THERE ARE NOT ANY IMPROVEMENTS BEING DONE IN PROPOSED BASIN E-2. THESE CALCULATIONS TAKE INTO CONSIDERATION PARKING LOT IMPROVEMENTS SHOWN ON PLANS BY WILSON AND COMPANY STAMP DATED 9-17-2010 (H21/D010) AS EXISTING CONDITIONS.

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5) BACK FILL COMPACTION SHALL BE ACCORDING TO TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 - HOUR BASIS.

GENERAL NOTES:

1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY JEFF MORTENSEN AND ASSOCIATES. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERFICATION OF THIS INFORMATION.
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   TEMPORARY BENCHMARK #1 IS A P.K. NAIL AT TOP BACK OF CURB, LOCATED ON THE SOUTHWEST CORNER OF PROSPECT AVENUE N.E. AND MORRIS STREET N.E., ELEVATION = 5528.32 FEET (NAVD 1988)
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15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES, INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT.
16. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
18. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
19. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
20. THE CONTRACTOR SHALL SUMBIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
21. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THECITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
22. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY CONFLICTS BETWEEN EXISTING OR PROPOSED UTILITIES ON THIS PROJECT PRIOR TO CONSTRUCTION.

DRAINAGE DATA

Percipitation Zone 4 - 10-year Storm P(360) = 1.93 in P(1440) = 2.44 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	1.38	0.139	0.175	3.72
E	0.62	0.00	0.00	0.13	0.49	1.49	0.077	0.097	2.04
Total	**1.83**								**5.77**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	1.45	0.146	0.186	3.84
E-1	0.07	0.00	0.00	0.00	0.07	1.69	0.010	0.013	0.25
E-2	0.55	0.00	0.00	0.13	0.42	1.46	0.067	0.085	1.79
Total	**1.83**								**5.88**

Percipitation Zone 4 - 100-year Storm P(360) = 2.92 in P(1440) = 3.65 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	2.24	0.226	0.280	5.67
E	0.62	0.00	0.00	0.13	0.49	2.39	0.124	0.154	3.06
Total	**1.83**								**8.72**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	2.33	0.235	0.295	5.80
E-1	0.07	0.00	0.00	0.00	0.07	2.64	0.015	0.020	0.37
E-2	0.55	0.00	0.00	0.13	0.42	2.36	0.108	0.134	2.69
Total	**1.83**								**8.86**

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MERLYN A. MILLER NEW MEXICO 14507 REGISTERED PROFESSIONAL ENGINEER 1/27/14

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

DRAINAGE REPORT AND CALCULATION

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:

C-102A

project no. 08-007

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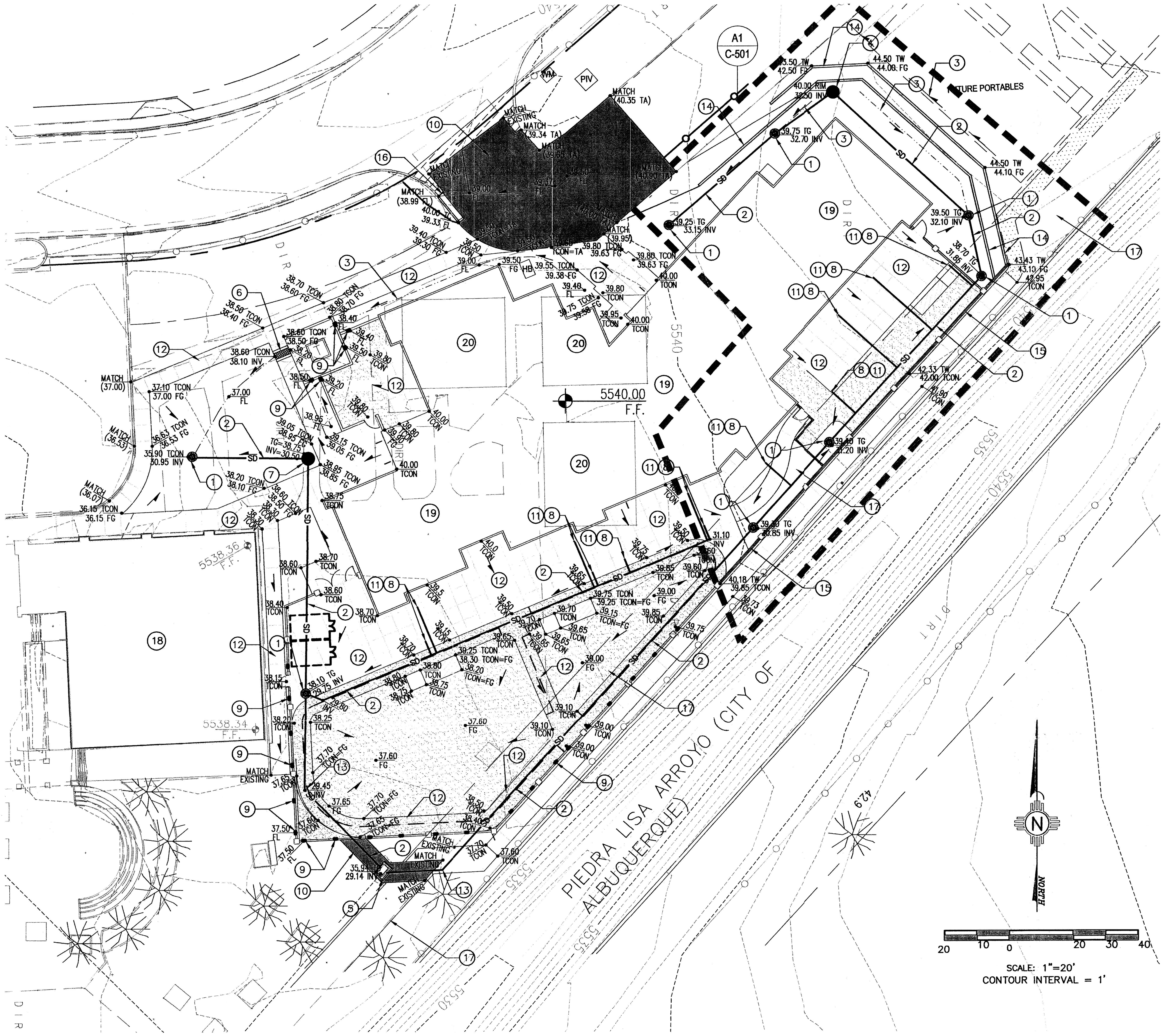
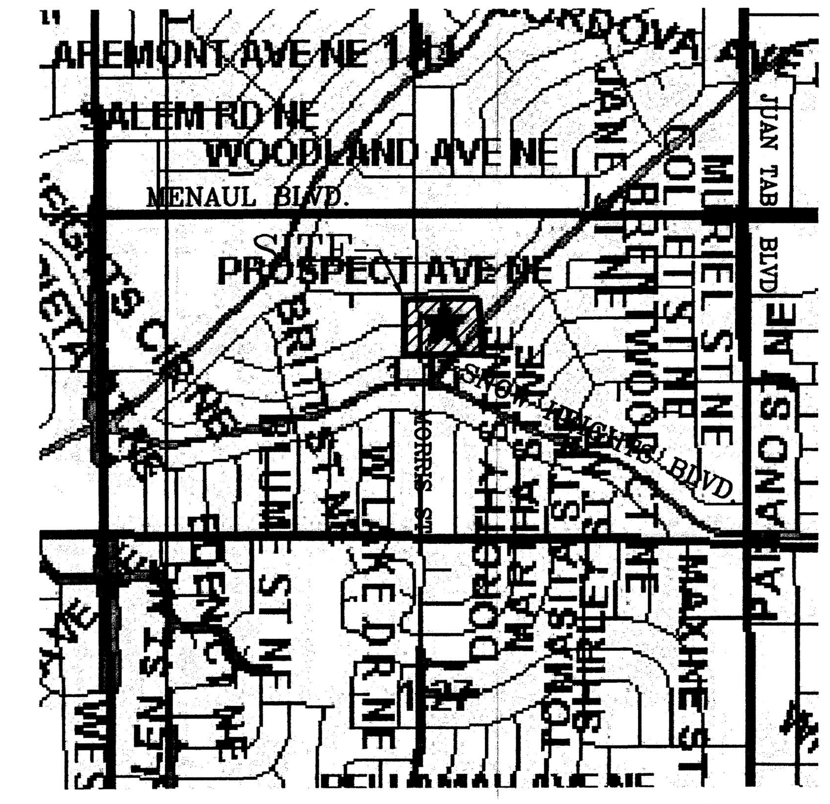
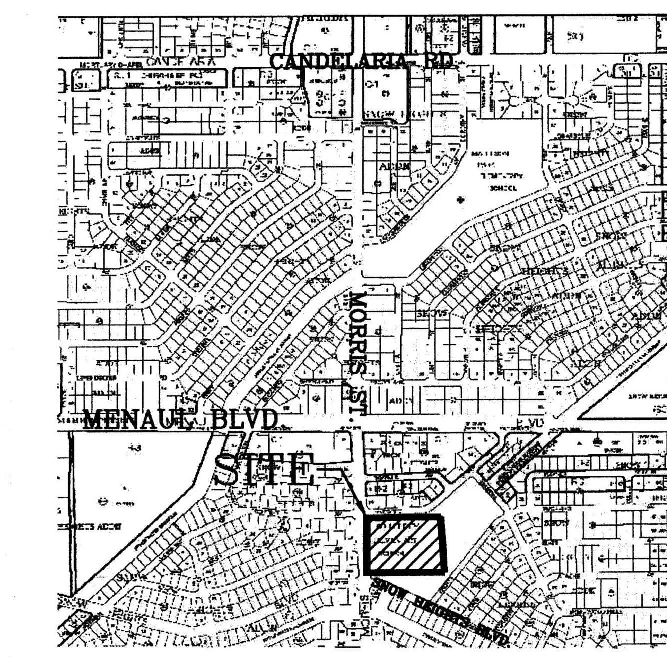




F.I.R.M. MAP PAN-357G

NOT TO SCALE



VICINITY MAP H-21-Z

NOT TO SCALE

SPECIAL ORDER 19

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7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 – HOUR BASIS.

LEGEND:

Symbol	Description	Symbol	Description
38.00 FG	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)	GB	GRADE BREAK
MATCH (95.19)	MATCH EXISTING ELEVATIONS		SWALE
TCON	TOP OF CONCRETE	SD	STORM DRAIN LINE
FL	FLOW LINE, CURB		
INV	INVERT		
FG	FINISH GRADE	5895	PROPOSED MAJOR CONTOUR
TW	TOP OF WALL		PROPOSED MINOR CONTOUR
TC	TOP OF CURB	5895	EXISTING MAJOR CONTOUR
TG	TOP OF GRATE		EXISTING MINOR CONTOUR
	PROPOSED DRAIN BASIN		
	PROPOSED MANHOLE		
	FLOW ARROW		

KEYED NOTES:

1. NEW 18" NYLOPLAST DRAIN BASIN. SEE SHEET C-502 FOR DETAIL.
2. NEW 12" ø STORM DRAIN LINE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
3. NEW EARTHEN SWALE. SEE SHEET C-501 FOR DETAIL.
4. NEW 4'-0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C-501 FOR HORIZONTAL CONTROL. RIM ELEV.=39.00 INV=32.40
5. EXISTING DROP INLET, CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. TG=35.94 INV=29.14
6. NEW 2' WIDE SIDEWALK CULVERT PER COA STANDARD DETAIL #2236. TG=38.60 INV=38.10
7. NEW 4'-0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C-501 FOR HORIZONTAL CONTROL. RIM ELEV.=38.60 INV=30.50
8. CONNECT ROOF DRAIN DOWNSPOUT TO NEW 6" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
9. PROVIDE WALL OPENING AT FINISHED GRADE TO ALLOW FOR DRAINAGE. TYPICAL 10' O.C.
10. ASPHALT, CURB AND GUTTER OR CONCRETE PAVING REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT, CONCRETE PAVING OR CURB AND GUTTER, TO A CLEAN STRAIGHT EDGE. REPLACE SECTIONS AND MATCH TO EXISTING SECTIONS OF ASPHALT, CONCRETE, BASE COURSE, AND/OR SUBGRADE PREPARATION. SEE GEOTECHNICAL REPORT FOR MINIMUM REQUIREMENTS. REMOVE AND REPLACE ANY AREAS OF DISTURBED LANDSCAPE.
11. CONNECT NEW 6" ROOF DRAIN CONNECTION TO NEW 12" STORM DRAIN LINE WITH TEE OR ELBOW FITTING. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
12. NEW CONCRETE PAVING OR CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR DETAILS.
13. NEW 12"X12", 45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW TIERED RETAINING WALL. SEE ARCHITECTURAL SHEET AS-501K FOR DETAILS.
15. NEW TOT LOT RETAINING WALL. SEE ARCHITECTURAL SHEET AS-501K FOR DETAILS.
16. NEW CURB AND GUTTER PER COA STANDARD DETAIL #2415A.
17. REVOCABLE PERMIT MADE AND ENTERED ON 23 SEPTEMBER, 2013 BY AND BETWEEN THE CITY OF ALBUQUERQUE AND ALBUQUERQUE SCHOOL DISTRICT NO. 12. RECORDED ON 21 OCTOBER, 2013 ON DOCUMENT NO. 2013115813 IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY.
18. EXISTING BUILDING TO REMAIN.
19. NEW PROPOSED BUILDING.
20. EXISTING PORTABLE BUILDING TO BE REMOVED BY OTHERS.

A1 **GRADING AND DRAINAGE PLAN**
SCALE: 1" = 20'

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VERLYN A. MILLER II, NEW MEXICO, 14507, REGISTERED PROFESSIONAL ENGINEER, REV. 1/27/14

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

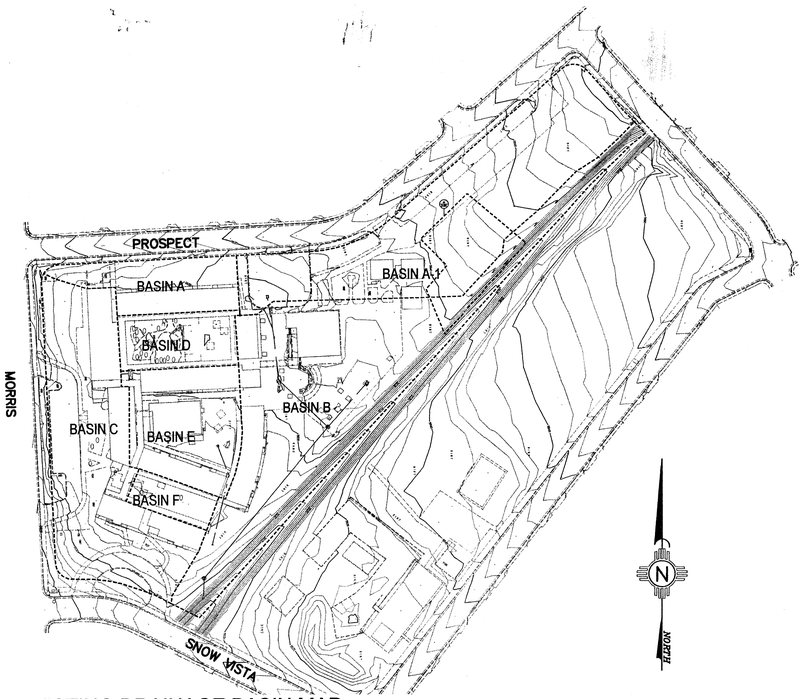
GRADING AND DRAINAGE PLAN

date: 12-13-13	
drawn by: JAL	
checked by: RAL	
file name: 08-007_C-101K.dwg	
revisions:	
X	9-18-2013
X	COA HYDROLOGY SUBMIT
X	

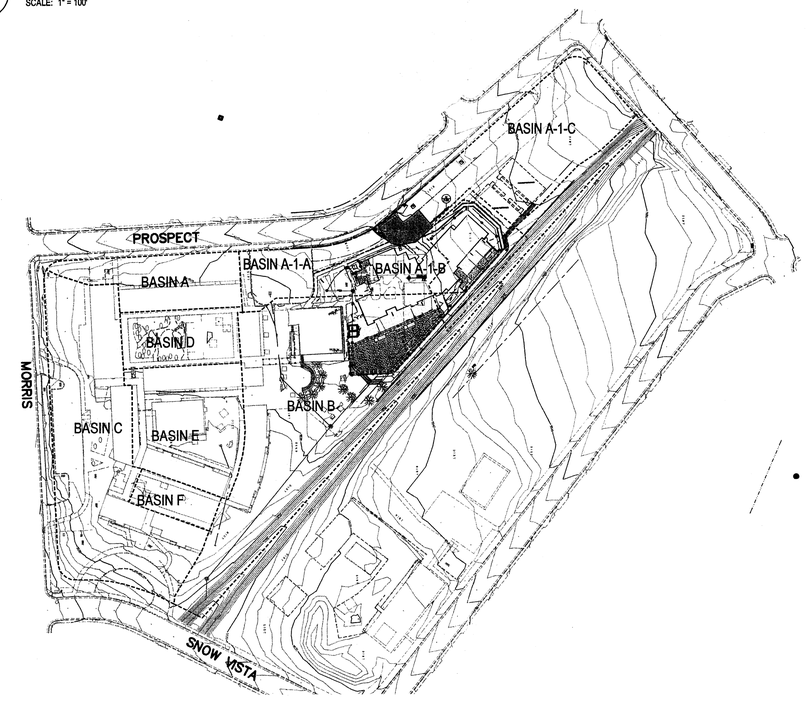
C-101K

project no. 08-007

APS PROJECT NO: 0240.0005



C1 EXISTING DRAINAGE BASIN MAP
SCALE: 1" = 100'



A1 PROPOSED DRAINAGE MAP
SCALE: 1" = 100'

SITE LOCATION

COLLET PARK ELEMENTARY IS LOCATED AT 2100 MORRIS ST. N.E. IN ALBUQUERQUE, NM. THE SCHOOL BOUNDARY IS IRREGULAR AND BOUNDED BY PROSPECT AVENUE TO THE NORTH, MORRIS STREET TO THE WEST, SNOW VISTA BOULEVARD TO THE SOUTH AND ON THE EAST BY GRETTA STREET AND MARTHA STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS DEVELOPED WITH ELEMENTARY SCHOOL INFRASTRUCTURE INCLUDING CLASS ROOM BUILDINGS, PAVED PARKING LOTS, AND PLAYGROUNDS. A MASTER GRADING AND DRAINAGE PLAN WAS APPROVED IN 1994. THE PROPERTY WAS DIVIDED INTO NINE BASINS, WHICH ARE ALPHABETICALLY IDENTIFIED. SINCE IMPROVEMENTS ARE WITHIN BASIN B AND A-1, THIS REPORT FOCUSES ONLY ON THE HYDORLOGIC NET DIFFERENCES IN THESE BASINS. BASIN B DRAINS TO THE PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. A PORTION OF BASIN A-1 DRAINS TO PROSPECT AVENUE BY SURFACE FLOW AND A PORTION OF BASIN A-1 DRAINS TO PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN B AND A-1.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A SINGLE, ONE STORY BUILDING, ASSOCIATED SIDEWALK, CURB AND GUTTER, AND GRADING. THE PROPOSED DEVELOPMENT WILL ALSO INCLUDE GRADING FOR A PROPOSED PLAYGROUND WITH A NARROW TRACK RUNNING ALONG THE OUTSIDE. THE IMPROVEMENTS HAVE DIVIDED EXISTING DRAINAGE BASIN A-1 INTO THREE SEPERATE PROPOSED DRAINAGE BASINS AS SHOWN ON PROPOSED BASIN MAP ON THIS SHEET. THE MAJORITY OF THE STORM WATER FLOW GENERATED FROM THE DEVELOPMENT OF THIS SITE WILL BE COLLECTED BY A NEW STORM DRAIN SYSTEM. THIS FLOW WILL THEN BE CONVEYED TO THE PIEDRA LISA ARROYO VIA EXISTING DRAINAGE INFRASTRUCTURE. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN B, A-1-A, A-1-B AND A-1-C.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN B BY 0.003 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.03 CFS. RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN A-1 BY 0.028 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.24 CFS. THE MAJORITY OF THE RUNOFF DEVELOPED FROM THE PROPOSED IMPROVEMENTS WILL DISCHARGE TO THE PIEDRA LISA ARROYO VIA THE NEW STORM DRAINAGE SYSTEM. NEGLIGIBLE FLOWS WILL SURFACE DISCHARGE INTO PROSPECT AVENUE FROM BASIN A-1-C. THERE ARE NOT ANY IMPROVEMENTS BEING DONE IN PROPOSED BASIN A-1-C. THESE CALCULATIONS TAKE INTO CONSIDERATION PARKING LOT IMPROVEMENTS SHOWN ON PLANS BY WILSON AND COMPANY STAMP DATED 9-17-2010 (H21/D010) AS EXISTING CONDITIONS.

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14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES, INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT.
16. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
18. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0%, AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
19. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
20. THE CONTRACTOR SHALL SUMBIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
21. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THECITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
22. CONTRACTOR SHALL ADJUST THE STORM DRAIN LINES FROM THE ROOF DRAINS AS NECESSARY TO AVOID THE NEW FIRE LINE OR ANY OTHER PROPOSED OR EXISTING UTILITIES.
23. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY CONFLICTS BETWEEN EXISTING OR PROPOSED UTILITIES ON THIS PROJECT PRIOR TO CONSTRUCTION.

DRAINAGE DATA

Percipitation Zone 4 - 10-year Storm P(360) = 1.93 in P(1440) = 2.44 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B	C	D	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
B	2.35	0.00	0.10	0.80	1.45	1.31	0.257	0.317	7.13
A-1	1.52	0.00	0.00	1.00	0.52	1.06	0.134	0.156	4.12
Total	**3.87**								**11.25**
Proposed Conditions									
B	2.35	0.00	0.10	0.78	1.47	1.32	0.258	0.320	7.16
A-1-A	0.24	0.00	0.00	0.10	0.14	1.29	0.026	0.032	0.73
A-1-B	0.46	0.00	0.00	0.18	0.28	1.31	0.050	0.062	1.41
A-1-C	0.82	0.00	0.00	0.56	0.26	1.03	0.071	0.082	2.19
Total	**3.87**								**11.48**

Percipitation Zone 4 - 100-year Storm P(360) = 2.92 in P(1440) = 3.65 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B	C	D	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
B	2.35	0.00	0.10	0.80	1.45	2.17	0.425	0.516	10.89
A-1	1.52	0.00	0.00	1.00	0.52	1.86	0.236	0.269	6.46
Total	**3.87**								**17.35**
Proposed Conditions									
B	2.35	0.00	0.10	0.78	1.47	2.18	0.427	0.519	10.92
A-1-A	0.24	0.00	0.00	0.10	0.14	2.15	0.043	0.052	1.11
A-1-B	0.46	0.00	0.00	0.18	0.28	2.18	0.084	0.101	2.14
A-1-C	0.82	0.00	0.00	0.56	0.26	1.83	0.125	0.142	3.45
Total	**3.87**								**17.62**

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VERLYN A. MILLER IV
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REGISTERED PROFESSIONAL ENGINEER
12/17/14

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

DRAINAGE PLAN REPORT AND CALCULATIONS

DRAINAGE PLAN

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101K.dwg
revisions:
1 9-18-2013
2 COA HYDROLOGY SUBMIT
3

C-102K

project no. 08-007

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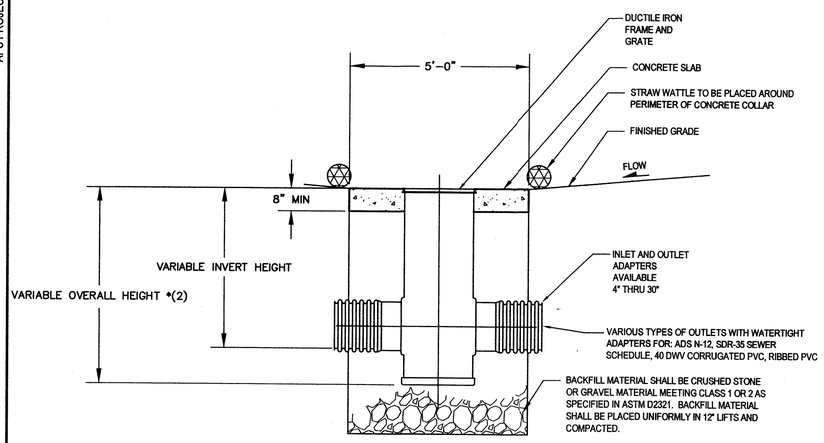
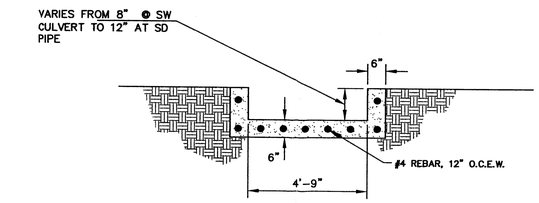
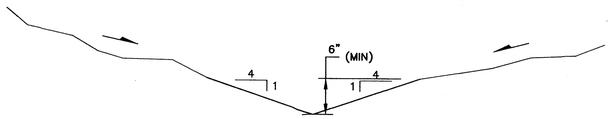


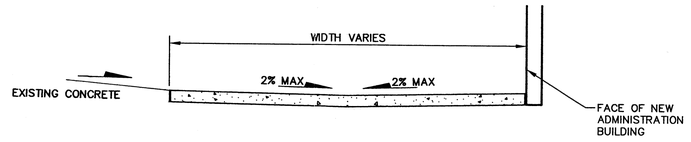
C1 DRAIN BASIN CONCRETE COLLAR AND STRAW WATTLE
SCALE: NOT TO SCALE



D3 CONCRETE CHANNEL
SCALE: NOT TO SCALE

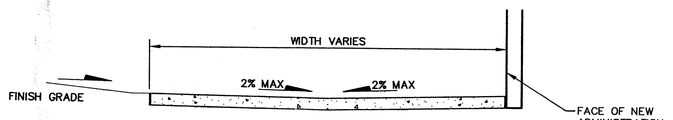


C3 TYPICAL EARTHEN SWALE
SCALE: NOT TO SCALE



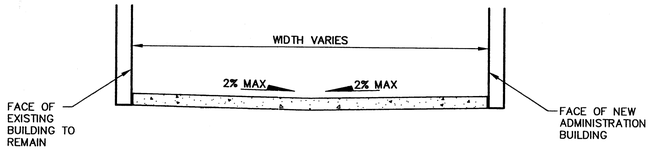
D4 TYPICAL SIDEWALK SECTION 'C1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



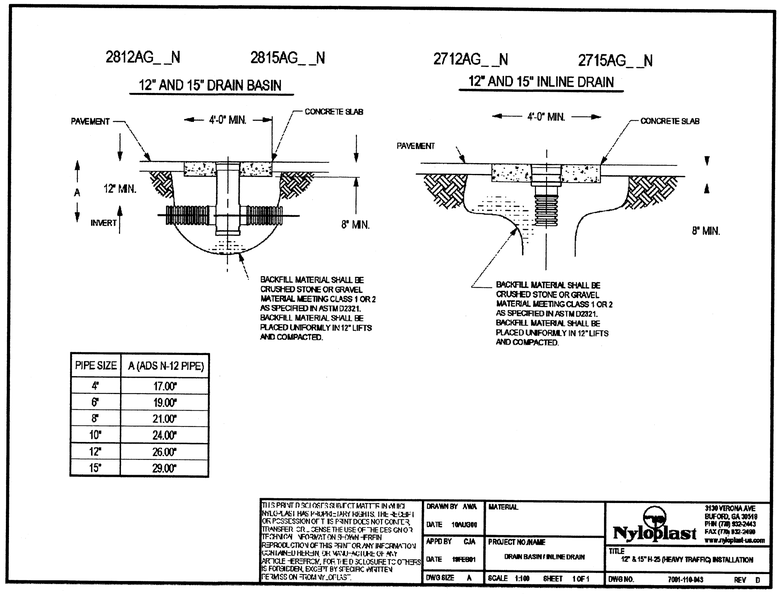
C4 TYPICAL SIDEWALK SECTION 'B1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



B4 TYPICAL SIDEWALK SECTION 'A1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



PIPE SIZE	A (ADS N-12 PIPE)
4"	17.00"
6"	19.00"
8"	21.00"
10"	24.00"
12"	26.00"
15"	29.00"

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DRAWN BY	AWA
DATE	10AUG99
APPD BY	CJA
DATE	18FEB01
DWG SIZE	A
MATERIAL	
PROJECT NO./NAME	DRAIN BASIN / INLINE DRAIN
SCALE	1:100
SHEET	1 OF 1

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BUFORD, GA 30518
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FAX (770) 932-2490
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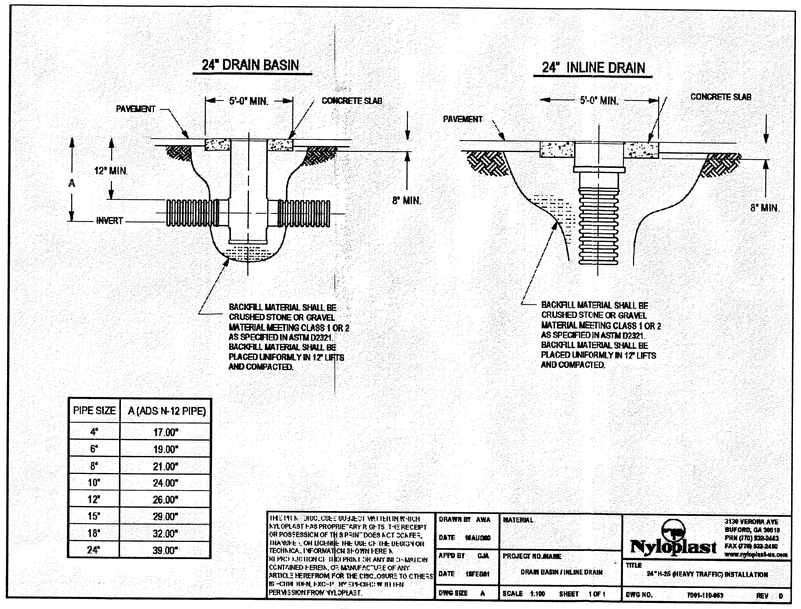
TITLE: 12" & 15" H-25 (HEAVY TRAFFIC) INSTALLATION
DWG NO. 7091-110-943 REV D

A1 NYLOPLAST DRAIN BASIN DETAIL
SCALE: NOT TO SCALE



PIPE SIZE	A (ADS N-12 PIPE)
4"	17.00"
6"	19.00"
8"	21.00"
10"	24.00"
12"	26.00"
15"	29.00"
18"	32.00"
24"	39.00"

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DRAWN BY	AWA
DATE	06AUG00
APPD BY	CJA
DATE	18FEB01
DWG SIZE	A
MATERIAL	
PROJECT NO./NAME	DRAIN BASIN / INLINE DRAIN
SCALE	1:100
SHEET	1 OF 1

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TITLE: 24" H-25 (HEAVY TRAFFIC) INSTALLATION
DWG NO. 7091-110-963 REV D

NOTE: DRAIN BASIN COVERS SHALL BE ADA COMPLIANT AND PEDESTRIAN RATED.

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MERVYN A. MILLER II
NEW MEXICO
14507
REGISTERED PROFESSIONAL ENGINEER

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

MISCELLANEOUS DETAILS

date:	12-13-13
drawn by:	JAL
checked by:	RAL
file name:	08-007_C-101A.dwg
revisions:	
1	
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C-502

project no. 08-007

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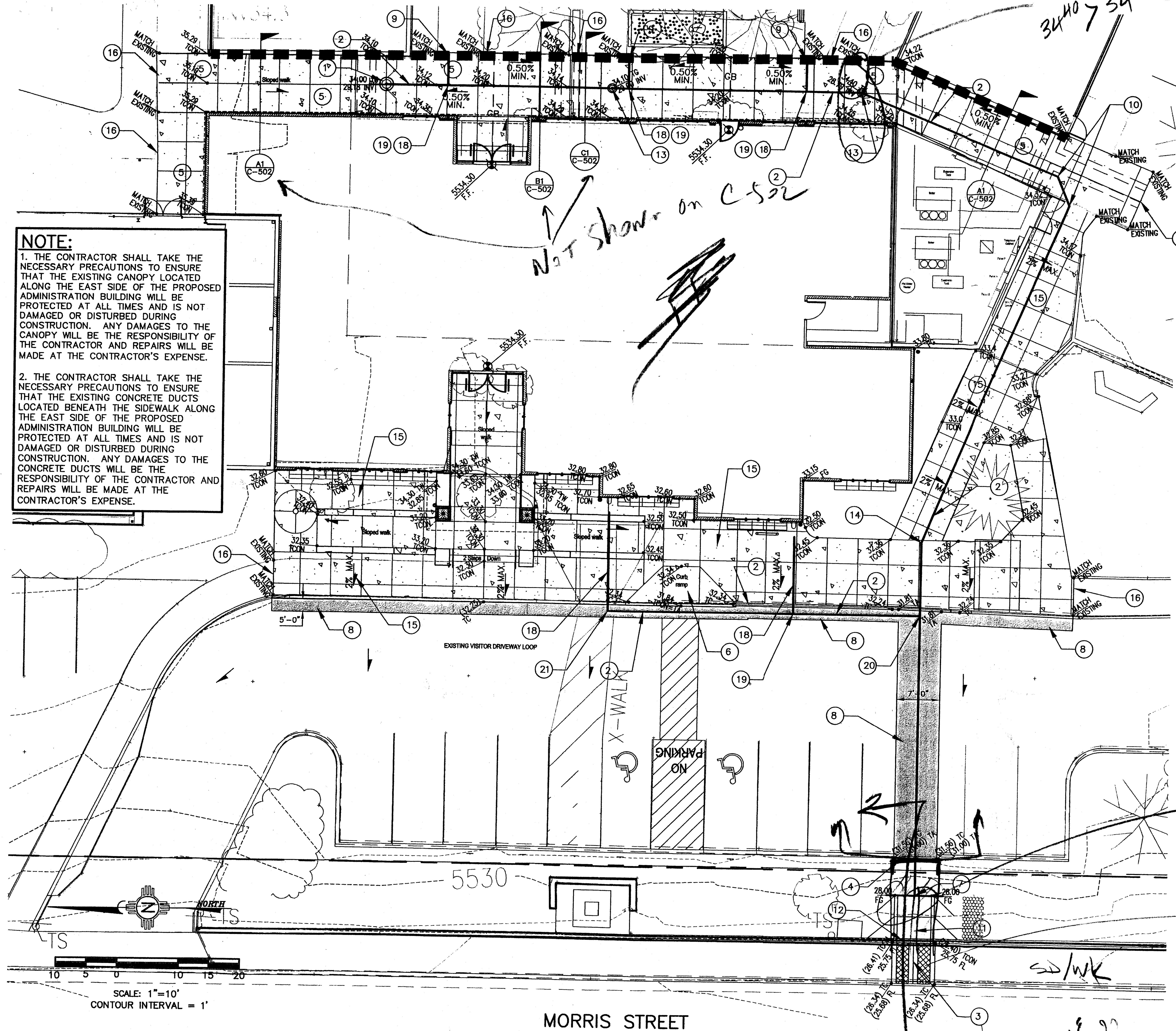
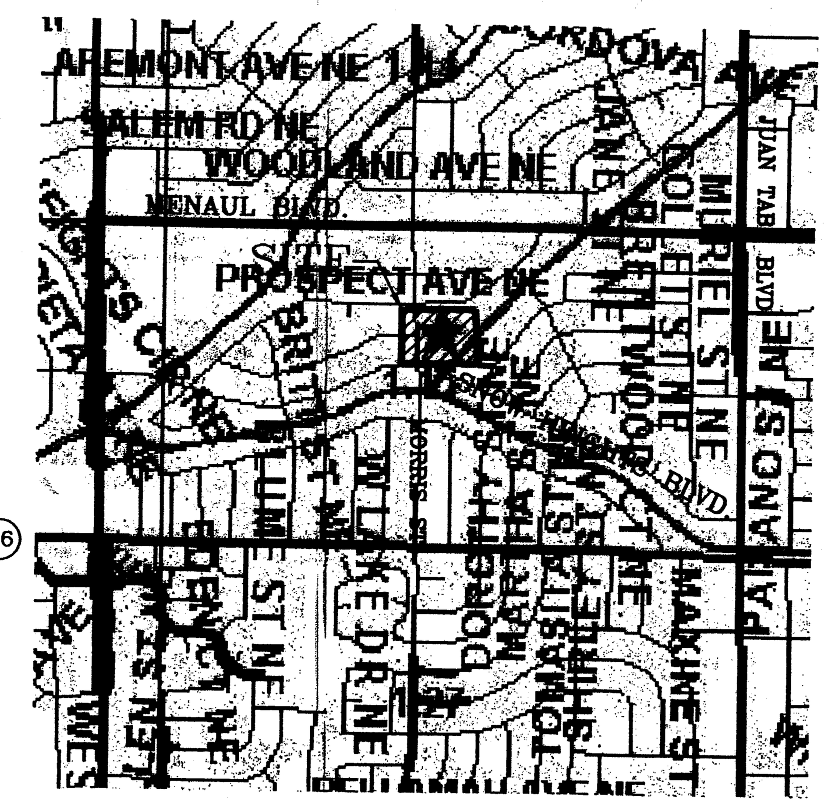
APS PROJECT NO: 0240.0005



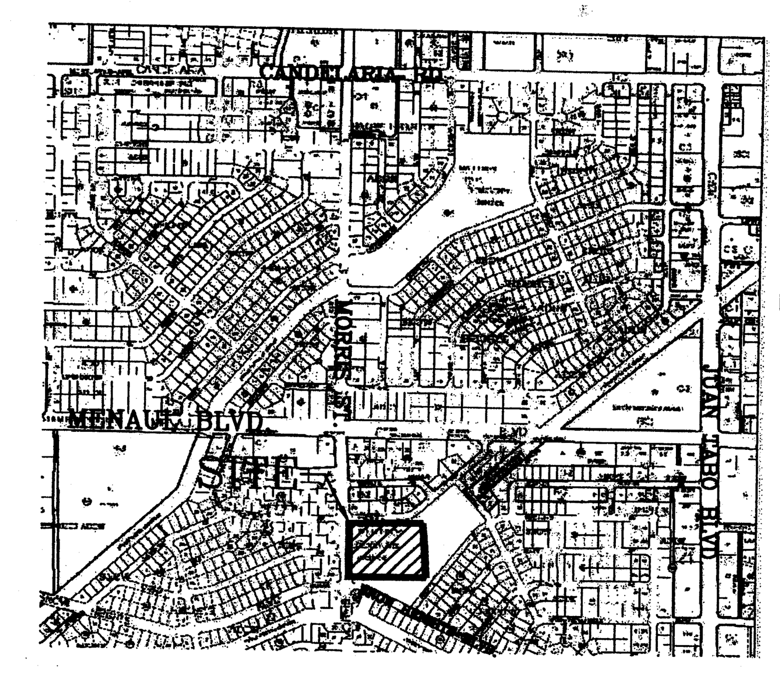
NOTE:

1. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO ENSURE THAT THE EXISTING CANOPY LOCATED ALONG THE EAST SIDE OF THE PROPOSED ADMINISTRATION BUILDING WILL BE PROTECTED AT ALL TIMES AND IS NOT DAMAGED OR DISTURBED DURING CONSTRUCTION. ANY DAMAGES TO THE CANOPY WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE.

2. THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO ENSURE THAT THE EXISTING CONCRETE DUCTS LOCATED BENEATH THE SIDEWALK ALONG THE EAST SIDE OF THE PROPOSED ADMINISTRATION BUILDING WILL BE PROTECTED AT ALL TIMES AND IS NOT DAMAGED OR DISTURBED DURING CONSTRUCTION. ANY DAMAGES TO THE CONCRETE DUCTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND REPAIRS WILL BE MADE AT THE CONTRACTOR'S EXPENSE.

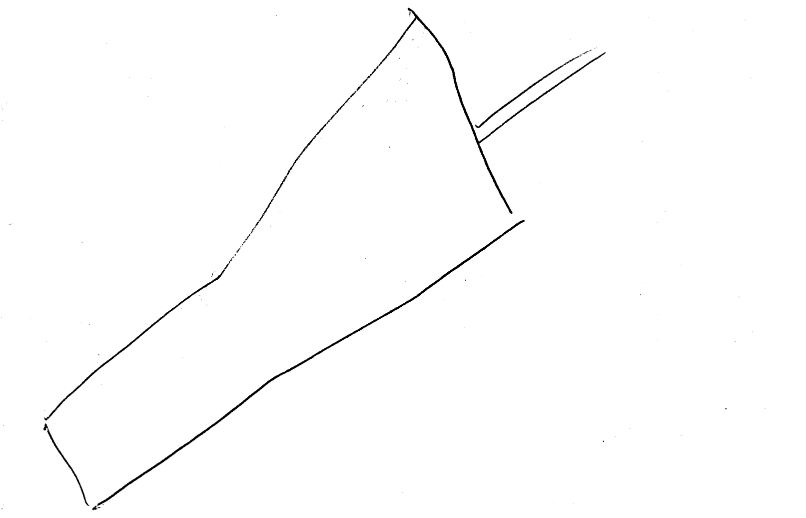


F.I.R.M. MAP PAN-357G
NOT TO SCALE



VICINITY MAP H-21-Z
NOT TO SCALE

BM 50-19



LEGEND:

(35.25) TCON	EXISTING SPOT ELEVATION
ELEV. FG	SPOT ELEVATION
TC	TOP OF CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TW	TOP OF WALL
BW	BOTTOM OF WALL
TCON	TOP OF CONCRETE
TS	TOP OF SIDEWALK
FG	FINISH GRADE
	SWALE
	HIGH POINT
5120	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	DRAINAGE FLOW ARROW

A1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 10'

KEYED NOTES:

1. NEW 18"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
2. NEW 12"ø STORM DRAIN PIPE, SLOPE=0.50%.
3. NEW DOUBLE 24" WIDE SIDEWALK CULVERT PER CITY OF ALBUQUERQUE STANDARD DRAWING #2236.
4. ASPHALT/CURB AND GUTTER REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT/CURB AND GUTTER TO A CLEAN STRAIGHT EDGE. REPLACE AND MATCH TO EXISTING SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
5. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SECTIONS. SLOPE PER PLANS AND DETAILS ON SHEET C-502.
6. NEW HANDICAP RAMP. SEE ARCHITECTURAL SHEETS FOR DETAIL.
7. OUTFALL OF NEW 12" STORM DRAIN PIPE. INV.= 28.00
8. ASPHALT REMOVAL AND REPLACEMENT AS REQUIRED FOR CONCRETE SIDEWALK INSTALLATION. CONTRACTOR SHALL SAWCUT ASPHALT TO A CLEAN STRAIGHT EDGE. NEW ASPHALT SECTION SHALL MATCH EXISTING ASPHALT SECTIONS AND ELEVATIONS. SEE GEOTECHNICAL REPORT FOR MINIMUM PAVEMENT SECTION REQUIREMENTS
9. CONNECT EXISTING DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
10. NEW 12"X12"X45° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
11. NEW 4'-9" WIDE CONCRETE CHANNEL. SEE SHEET C-502 FOR DETAIL.
12. NEW 3' WIDE, WALL CUT, TO ALLOW FOR DRAINAGE. REMOVE AND DISPOSE OF CONCRETE.
13. NEW 12"ø NYLOPLAST DRAIN BASIN SEE DETAIL SHEET C-502 FOR DETAILS. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
14. NEW 12"X12"X22.5° BEND. SEE SHEET C-501 FOR HORIZONTAL CONTROL
15. NEW CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR SIDEWALK DETAILS. SLOPE PER PLANS AND AS INDICATED ON SHEET C-502.
16. SAWCUT EXISTING CONCRETE SIDEWALK TO A CLEAN STRAIGHT EDGE. MATCH EXISTING ELEVATIONS AND PROVIDE SEALED CONSTRUCTION JOINT AT THE INTERFACE.
17. CONNECT NEW DOWNSPOUT TO NEW 12" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
18. NEW 6"ø STORM DRAIN PIPE. SLOPE = 1.00%
19. NEW 6"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
20. NEW 12"X12"X12" TEE. SEE SHEET C-501 FOR HORIZONTAL CONTROL.
21. NEW 6"X12" ELBOW. SEE SHEET C-501 FOR HORIZONTAL CONTROL.

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VERLYN A. MILLER II NEW MEXICO 14507 REGISTERED PROFESSIONAL ENGINEER 12/12/13

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:

C-101A

project no. 08-007

RECEIVED DEC 12 2013 LAND DEVELOPMENT SECTION

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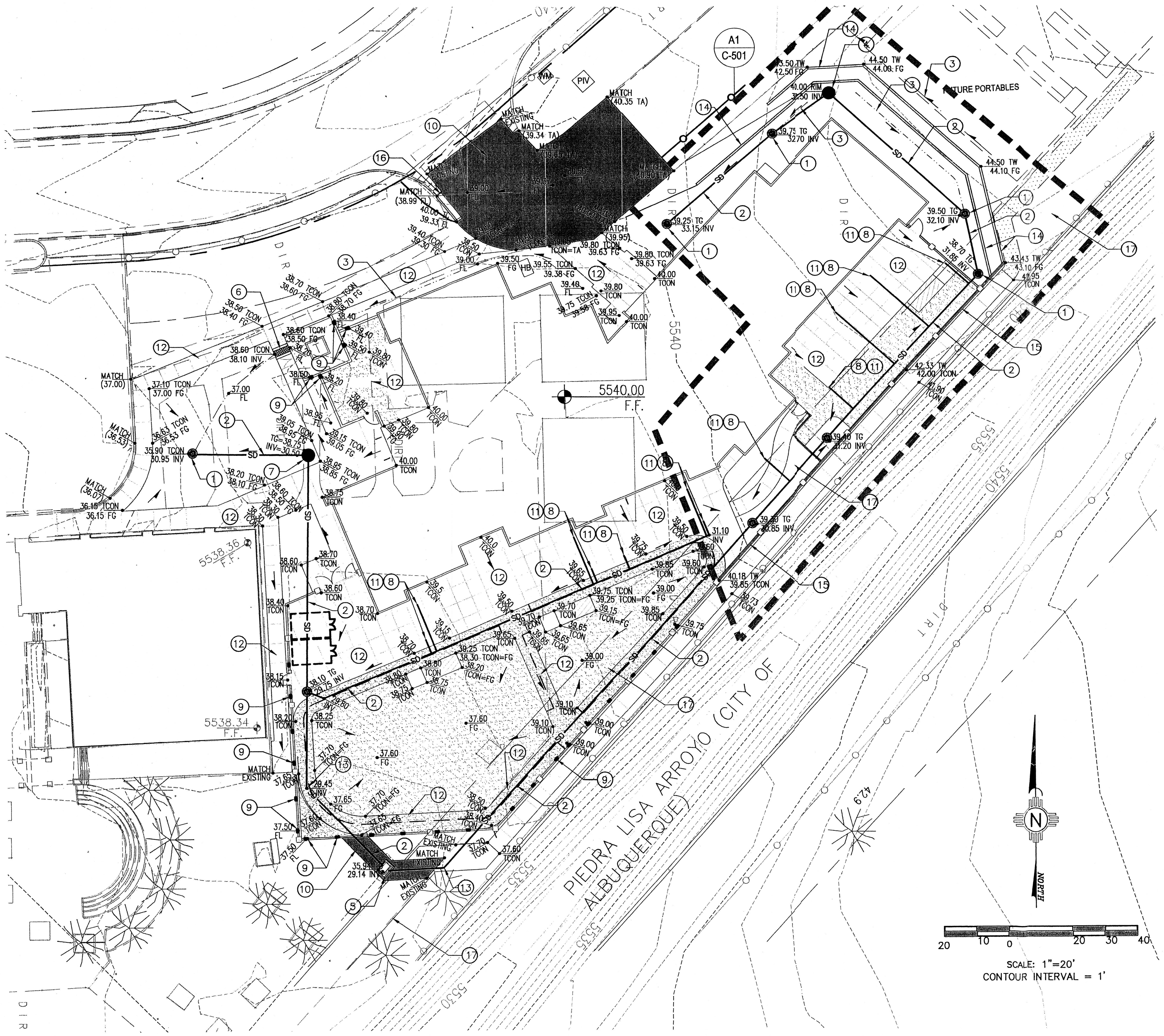
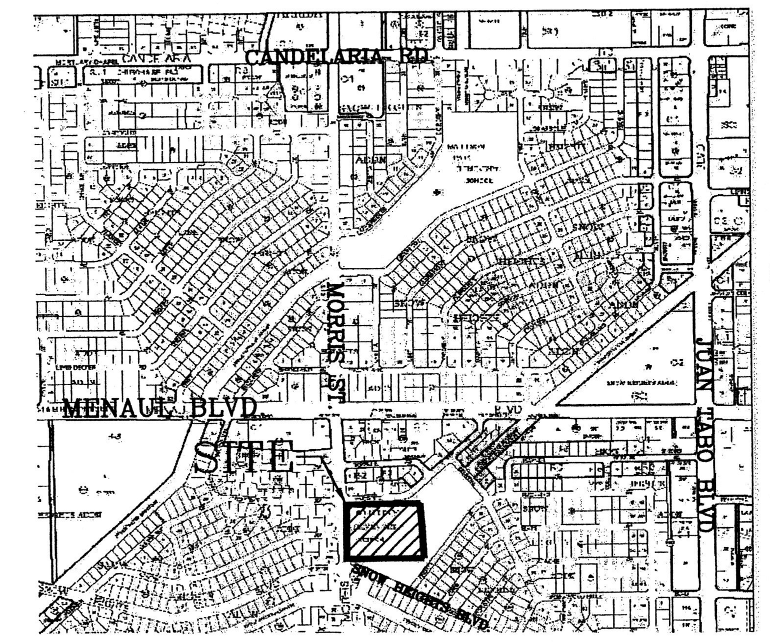
APS PROJECT NO: 0240.0005



F.I.R.M. MAP PAN–357G

NOT TO SCALE



VICINITY MAP H–21–Z

NOT TO SCALE

LEGEND:

38.00 / FG	PROPOSED SPOT ELEVATIONS (FINISHED GRADE)
MATCH / (95.19)	MATCH EXISTING ELEVATIONS
TCON	TOP OF CONCRETE
FL	FLOW LINE, CURB
INV	INVERT
FG	FINISH GRADE
TW	TOP OF WALL
TC	TOP OF CURB
TG	TOP OF GRATE
(symbol)	PROPOSED DRAIN BASIN
(symbol)	PROPOSED MANHOLE
(symbol)	FLOW ARROW
——GB——	GRADE BREAK
————	SWALE
——SD——	STORM DRAIN LINE
——5895——	PROPOSED MAJOR CONTOUR
————	PROPOSED MINOR CONTOUR
—— 5895 ——	EXISTING MAJOR CONTOUR
————	EXISTING MINOR CONTOUR

KEYED NOTES:

1. NEW 18" NYLOPLAST DRAIN BASIN. SEE SHEET C–502 FOR DETAIL.
2. NEW 12" ø STORM DRAIN LINE. SEE SHEET C–501 FOR HORIZONTAL CONTROL.
3. NEW EARTHEN SWALE. SEE SHEET C–501 FOR DETAIL.
4. NEW 4'–0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C–501 FOR HORIZONTAL CONTROL. RIM ELEV.=39.00 INV=32.40
5. EXISTING DROP INLET, CONTRACTOR TO FIELD VERIFY PRIOR TO CONSTRUCTION. TG=35.94 INV=29.14
6. NEW 2' WIDE SIDEWALK CULVERT PER COA STANDARD DETAIL #2236. TG=38.60 INV=38.10
7. NEW 4'–0" TYPE 'E' MANHOLE PER COA STANDARD DETAIL #2102. SEE SHEET C–501 FOR HORIZONTAL CONTROL. RIM ELEV.=38.60 INV=30.50
8. CONNECT ROOF DRAIN DOWNSPOUT TO NEW 6" STORM DRAIN LINE. SEE ARCHITECTURAL SHEETS FOR CONNECTION DETAILS.
9. PROVIDE WALL OPENING AT FINISHED GRADE TO ALLOW FOR DRAINAGE. TYPICAL 10' O.C.
10. ASPHALT, CURB AND GUTTER OR CONCRETE PAVING REMOVAL AND REPLACEMENT. SAWCUT EXISTING ASPHALT, CONCRETE PAVING OR CURB AND GUTTER, TO A CLEAN STRAIGHT EDGE. REPLACE SECTIONS AND MATCH TO EXISTING SECTIONS OF ASPHALT, CONCRETE, BASE COURSE, AND/OR SUBGRADE PREPARATION. SEE GEOTECHNICAL REPORT FOR MINIMUM REQUIREMENTS. REMOVE AND REPLACE ANY AREAS OF DISTURBED LANDSCAPE.
11. CONNECT NEW 6" ROOF DRAIN CONNECTION TO NEW 12" STORM DRAIN LINE WITH TEE OR ELBOW FITTING. SEE SHEET C–501 FOR HORIZONTAL CONTROL.
12. NEW CONCRETE PAVING OR CONCRETE SIDEWALK. SEE ARCHITECTURAL SHEETS FOR DETAILS.
13. NEW 12"X12", 45° BEND. SEE SHEET C–501 FOR HORIZONTAL CONTROL.
14. NEW TIERED RETAINING WALL. SEE ARCHITECTURAL SHEET AS–501K FOR DETAILS.
15. NEW TOT LOT RETAINING WALL. SEE ARCHITECTURAL SHEET AS–501K FOR DETAILS.
16. NEW CURB AND GUTTER PER COA STANDARD DETAIL #2415A.
17. REVOCABLE PERMIT MADE AND ENTERED ON 23 SEPTEMBER, 2013 BY AND BETWEEN THE CITY OF ALBUQUERQUE AND ALBUQUERQUE SCHOOL DISTRICT NO. 12. RECORDED ON 21 OCTOBER, 2013 ON DOCUMENT NO. 2013115813 IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY.

A1 GRADING AND DRAINAGE PLAN

SCALE: 1" = 20'

MILLER ENGINEERING CONSULTANTS
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Albuquerque, New Mexico 87114
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VERLYN A. MILLER II · NEW MEXICO · 14507 · REGISTERED PROFESSIONAL ENGINEER · 12/12/13

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

GRADING AND DRAINAGE PLAN

date: 12-13-13	
drawn by: JAL	
checked by: RAL	
file name: 08-007_C-101K.dwg	
revisions:	
1	9-18-2013
2	COA HYDROLOGY SUBMIT

C-101K

project no. 08-007

RECEIVED
DEC 12 2013
LAND DEVELOPMENT SECTION

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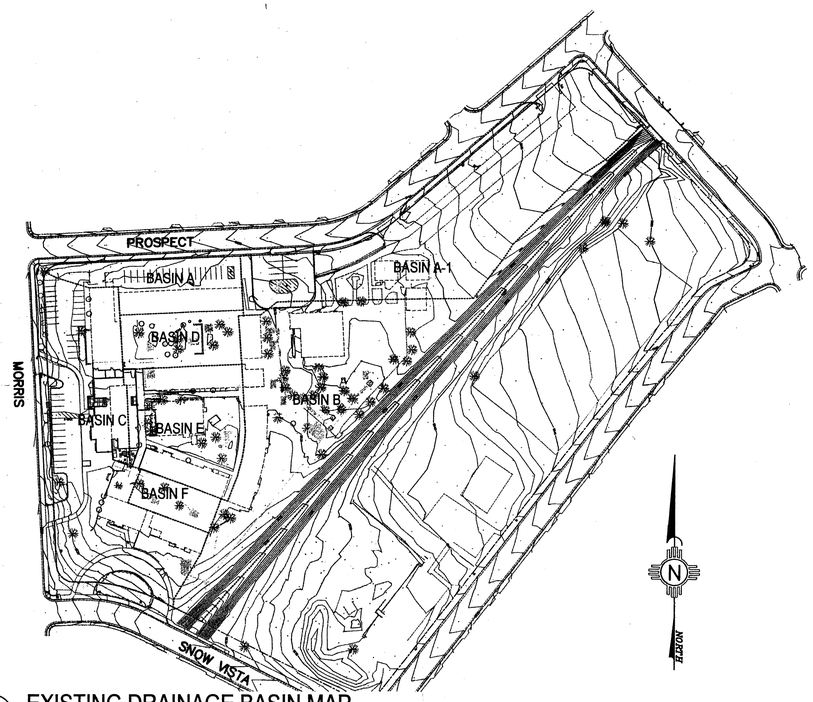
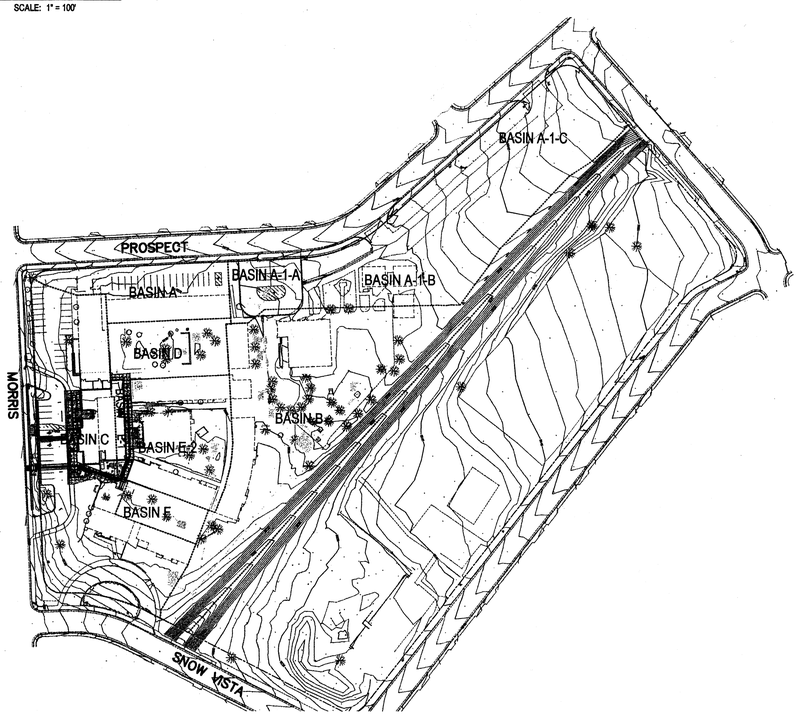
APS PROJECT NO: 0240.0005



C1 EXISTING DRAINAGE BASIN MAP
SCALE: 1" = 100'



A1 PROPOSED DRAINAGE MAP
SCALE: 1" = 100'

SITE LOCATION

COLLET PARK ELEMENTARY IS LOCATED AT 2100 MORRIS ST. N.E. IN ALBUQUERQUE, NM. THE SCHOOL BOUNDARY IS IRREGULAR AND BOUNDED BY PROSPECT AVENUE TO THE NORTH, MORRIS STREET TO THE WEST, SNOW VISTA BOULEVARD TO THE SOUTH AND ON THE EAST BY GRETTA STREET AND MARTHA STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS DEVELOPED WITH ELEMENTARY SCHOOL INFRASTRUCTURE INCLUDING CLASS ROOM BUILDINGS, PAVED PARKING LOTS, AND PLAYGROUNDS. A MASTER GRADING AND DRAINAGE PLAN WAS APPROVED IN 1994. THE PROPERTY WAS DIVIDED INTO NINE BASINS, WHICH ARE ALPHABETICALLY IDENTIFIED. SINCE IMPROVEMENTS ARE WITHIN BASIN C AND E-1, THIS REPORT FOCUSES ONLY ON THE HYDORLOGIC NET DIFFERENCES IN THESE BASINS. BASIN C DRAINS TO MORRIS STREET VIA SURFACE FLOWS. A PORTION OF BASIN E DRAINS TO MORRIS STREET VIA SURFACE FLOWS AND A PORTION OF BASIN E DRAINS TO PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C AND E.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A SINGLE, ONE STORY BUILDING AND THE RENOVATION OF EXISTING BUILDING STRUCTURES INCLUDING NEW CONCRETE SIDEWALKS AND HANDICAP ACCESS RAMPS FROM THE LOOP DROP OFF LANE AND GRADING. THE IMPROVEMENTS HAVE DIVIDED EXISTING DRAINAGE BASIN E INTO TWO SEPERATE PROPOSED DRAINAGE BASINS AS SHOWN ON PROPOSED BASIN MAP ON THIS SHEET. THE MAJORITY OF THE STORM WATER FLOW GENERATED FROM THE DEVELOPMENT WITHIN BASIN C WILL CONTINUE TO DRAIN TO MORRIS STREET VIA SURFACE FLOW. THE STORM WATER FLOW GERNERATED WITHIN BASIN E-1 WILL BE COLLECTED BY A NEW STORM DRAIN SYSTEM. THIS FLOW WILL THEN BE CONVEYED TO MORRIS STREET. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN C, E-1 AND E-2.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN C BY 0.015 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.13 CFS. RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN E BY 0.0 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.0 CFS. THE MAJORITY OF THE RUNOFF DEVELOPED FROM THE PROPOSED IMPROVEMENTS WILL DISCHARGE TO MORRIS STREET VIA SURFACE FLOW FROM BASIN C AND VIA THE NEW STORM DRAINAGE SYSTEM FROM BASIN E-1. THERE ARE NOT ANY IMPROVEMENTS BEING DONE IN PROPOSED BASIN E-2. THESE CALCULATIONS TAKE INTO CONSIDERATION PARKING LOT IMPROVEMENTS SHOWN ON PLANS BY WILSON AND COMPANY STAMP DATED 9-17-2010 (H21/D010) AS EXISTING CONDITIONS.

GENERAL NOTES:

1. EXISTING TOPOGRAPHIC DATA SHOWN ON THESE PLANS WAS PROVIDED BY JEFF MORTENSEN AND ASSOCIATES. MILLER ENGINEERING CONSULTANTS HAS UNDERTAKEN NO FIELD VERFICATION OF THIS INFORMATION.
2. PROJECT BENCHMARK IS ACS BRASS DISC STAMPED "2-H21", SET ON TOP OF A CONCRETE POST FLUSH WITH TOP OF CURB, LOCATED AT THE INTERSECTION OF MENAUL BOULEVARD N.E. AND JUAN TABO BOULEVARD N.E.
   ELEVATION = 5605.234 FEET (NAVD 1988)

   TEMPORARY BENCHMARK #1 IS A P.K. NAIL AT TOP BACK OF CURB, LOCATED ON THE SOUTHWEST CORNER OF PROSPECT AVENUE N.E. AND MORRIS STREET N.E., ELEVATION = 5528.32 FEET (NAVD 1988)
3. THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES DURING THE CONSTRUCTION PHASE.
4. CONTRACTOR SHALL OBTAIN A GRADING PERMIT FROM THE CITY OF ALBUQUERQUE, PRIOR TO ANY GRADING OR CONSTRUCTION.
5. TWO WORKING DAYS PRIOR TO ANY EXCAVATION CONTRACTOR MUST CONTACT LINE LOCATING SERVICE 260-1990 FOR LOCATION OF EXISTING UTILITIES.
6. ALL EMBANKMENTS SHALL BE PLACED AND COMPACTED IN LIFTS OF MAXIMUM OF 8". THE EMBANKMENTS SHALL BE WETTED AND COMPACTED TO 95% OPTIMUM DENSITY PER ASTM D1557 AND 95% UNDER ALL STRUCTURES INCLUDING DRIVEWAYS AND PARKING LOTS.
7. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER(S) OF THE PROPERTY SERVED.
8. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X. DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 357G.
10. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE STORM DRAINAGE REGULATIONS. ALL WORK PERFORMED SHALL COMPLY WITH THE REQUIREMENTS OF THE CITY OF ALBUQUERQUE "GRADING AND DRAINAGE DESIGN REQUIREMENTS AND POLICIES FOR LAND DEVELOPMENT."
11. THE OWNER, CONTRACTOR AND/OR BUILDER SHALL COMPLY WITH ALL APPROPRIATE LOCAL, STATE AND FEDERAL REGULATIONS AND REQUIREMENTS.
12. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY. (FUGITIVE DUST PERMIT)
14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES, INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT.
16. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
18. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0% AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
19. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
20. THE CONTRACTOR SHALL SUMBIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
21. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THECITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
22. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY CONFLICTS BETWEEN EXISTING OR PROPOSED UTILITIES ON THIS PROJECT PRIOR TO CONSTRUCTION.

SPECIAL ORDER 19

DRAINAGE FACILITIES WITHIN THE CITY RIGHT-OF-WAY NOTICE TO CONTRACTOR

1) AN EXCAVATION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
2) ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HERON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THRUGH UPDATE #7 AMENDMENT 1.
3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
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 TRAFFIC/STREET USE.
6) MAINTENANCE OF THE FACILITY SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY BEING SERVED.
7) WORK ON ARTERIAL STREETS SHALL BE PERFORMED ON A 24 - HOUR BASIS.

DRAINAGE DATA

Percipitation Zone 4 - 10-year Storm P(360) = 1.93 in P(1440) = 2.44 in

Basin	Basin Area (Ac)	Land Treatment Factors (Acres) A	B	C	D	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	1.38	0.139	0.175	3.72
E	0.62	0.00	0.00	0.13	0.49	1.49	0.077	0.097	2.04
Total	**1.83**								**5.77**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	1.45	0.146	0.186	3.84
E-1	0.07	0.00	0.00	0.00	0.07	1.69	0.010	0.013	0.25
E-2	0.55	0.00	0.00	0.13	0.42	1.46	0.067	0.085	1.79
Total	**1.83**								**5.88**

Percipitation Zone 4 - 100-year Storm P(360) = 2.92 in P(1440) = 3.65 in

Basin	Basin Area (Ac)	Land Treatment Factors (Acres) A	B	C	D	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
C	1.21	0.10	0.00	0.25	0.86	2.24	0.226	0.280	5.67
E	0.62	0.00	0.00	0.13	0.49	2.39	0.124	0.154	3.06
Total	**1.83**								**8.72**
Proposed Conditions									
C	1.21	0.10	0.00	0.16	0.95	2.33	0.235	0.295	5.80
E-1	0.07	0.00	0.00	0.00	0.07	2.64	0.015	0.020	0.37
E-2	0.55	0.00	0.00	0.13	0.42	2.36	0.108	0.134	2.69
Total	**1.83**								**8.86**

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JERALYN A. MILLER
NEW MEXICO
14507
12/12/13
REGISTERED PROFESSIONAL ENGINEER

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

DRAINAGE REPORT AND CALCULATION

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:

C-102A

project no. 08-007

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LAND DEVELOPMENT SECTION

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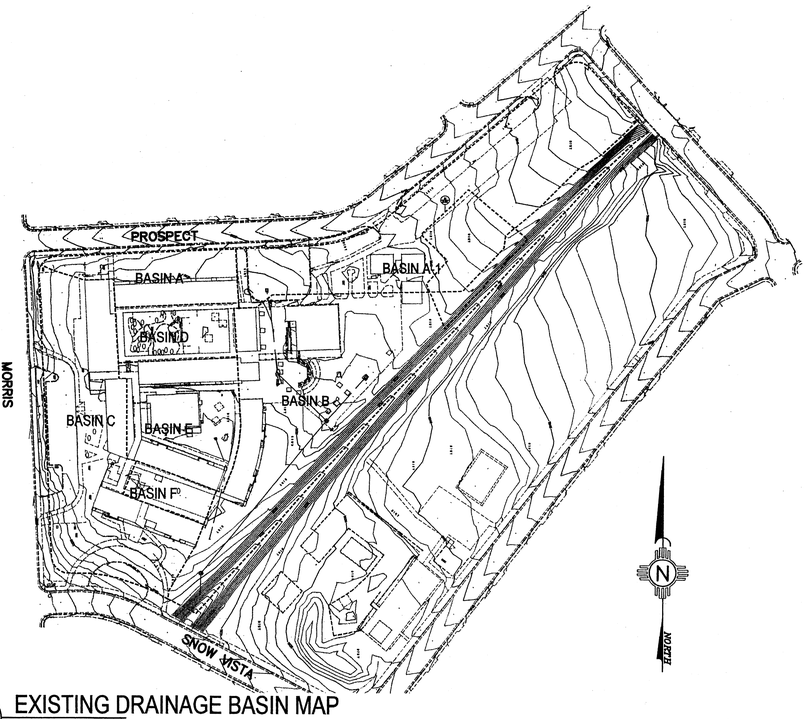
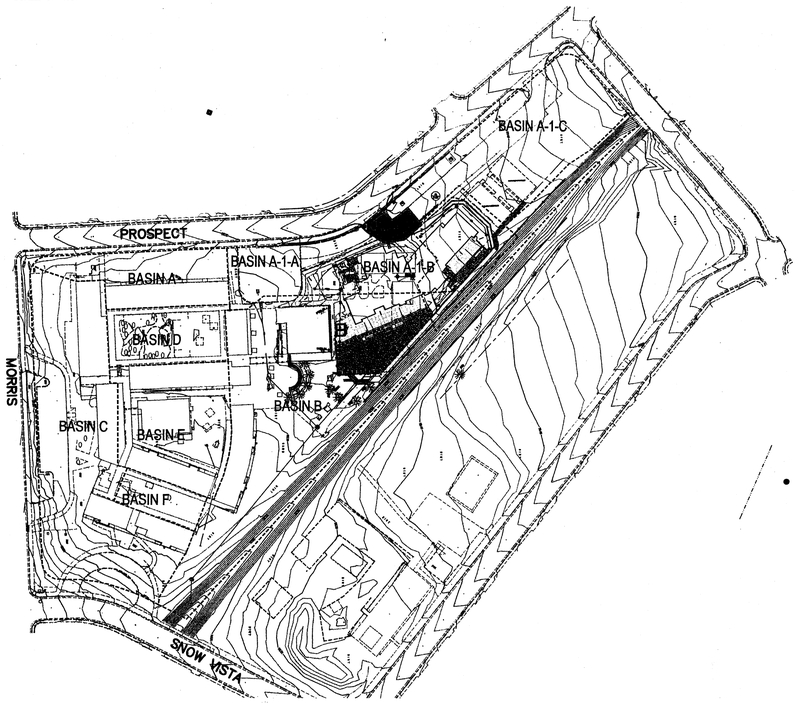
APS PROJECT NO: 0240.0005



C1 EXISTING DRAINAGE BASIN MAP
SCALE: 1" = 100'



A1 PROPOSED DRAINAGE MAP
SCALE: 1" = 100'

SITE LOCATION

COLLET PARK ELEMENTARY IS LOCATED AT 2100 MORRIS ST. N.E. IN ALBUQUERQUE, NM. THE SCHOOL BOUNDARY IS IRREGULAR AND BOUNDED BY PROSPECT AVENUE TO THE NORTH, MORRIS STREET TO THE WEST, SNOW VISTA BOULEVARD TO THE SOUTH AND ON THE EAST BY GRETTA STREET AND MARTHA STREET.

EXISTING ON SITE CONDITIONS

THE SITE IS DEVELOPED WITH ELEMENTARY SCHOOL INFRASTRUCTURE INCLUDING CLASS ROOM BUILDINGS, PAVED PARKING LOTS, AND PLAYGROUNDS. A MASTER GRADING AND DRAINAGE PLAN WAS APPROVED IN 1994. THE PROPERTY WAS DIVIDED INTO NINE BASINS, WHICH ARE ALPHABETICALLY IDENTIFIED. SINCE IMPROVEMENTS ARE WITHIN BASIN B AND A-1, THIS REPORT FOCUSES ONLY ON THE HYDORLOGIC NET DIFFERENCES IN THESE BASINS. BASIN B DRAINS TO THE PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. A PORTION OF BASIN A-1 DRAINS TO PROSPECT AVENUE BY SURFACE FLOW AND A PORTION OF BASIN A-1 DRAINS TO PIEDRA LISA ARROYO VIA STORM DRAIN AND SURFACE FLOWS. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN B AND A-1.

PROPOSED CONDITIONS

THE PROPOSED DEVELOPMENT OF THE SITE WILL CONSIST OF A SINGLE, ONE STORY BUILDING, ASSOCIATED SIDEWALK, CURB AND GUTTER, AND GRADING. THE PROPOSED DEVELOPMENT WILL ALSO INCLUDE GRADING FOR A PROPOSED PLAYGROUND WITH A NARROW TRACK RUNNING ALONG THE OUTSIDE. THE IMPROVEMENTS HAVE DIVIDED EXISTING DRAINAGE BASIN A-1 INTO THREE SEPERATE PROPOSED DRAINAGE BASINS AS SHOWN ON PROPOSED BASIN MAP ON THIS SHEET. THE MAJORITY OF THE STORM WATER FLOW GENERATED FROM THE DEVELOPMENT OF THIS SITE WILL BE COLLECTED BY A NEW STORM DRAIN SYSTEM. THIS FLOW WILL THEN BE CONVEYED TO THE PIEDRA LISA ARROYO VIA EXISTING DRAINAGE INFRASTRUCTURE. THE DRAINAGE DATA ON THIS PAGE SUMMARIZES THE EXISTING PEAK DISCHARGE AND RUNOFF VOLUME FOR BASIN B, A-1-A, A-1-B AND A-1-C.

OFFSITE FLOWS

THERE ARE NO APPARENT OFFSITE FLOWS AFFECTING THE SITE.

CONCLUSION

RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN B BY 0.003 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.03 CFS. RUNOFF VOLUME AND FLOW RATE INCREASED AS A RESULT OF CHANGES IN LAND TREATMENTS FOR BASIN A-1 BY 0.026 ACRE FEET AND THE PEAK FLOW RATE HAS INCREASED BY 0.24 CFS. THE MAJORITY OF THE RUNOFF DEVELOPED FROM THE PROPOSED IMPROVEMENTS WILL DISCHARGE TO THE PIEDRA LISA ARROYO VIA THE NEW STORM DRAINAGE SYSTEM. NEGLIGIBLE FLOWS WILL SURFACE DISCHARGE INTO PROSPECT AVENUE FROM BASIN A-1-C. THERE ARE NOT ANY IMPROVEMENTS BEING DONE IN PROPOSED BASIN A-1-C. THESE CALCULATIONS TAKE INTO CONSIDERATION PARKING LOT IMPROVEMENTS SHOWN ON PLANS BY WILSON AND COMPANY STAMP DATED 9-17-2010 (H21/D010) AS EXISTING CONDITIONS.

SPECIAL ORDER 19

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3) TWO WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL 260-1990, FOR LOCATION OF EXISTING UTILITIES.
4) FRIOR 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 TRAFFIC/STREET USE.
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GENERAL NOTES:

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   TEMPORARY BENCHMARK #1 IS A P.K. NAIL AT TOP BACK OF CURB, LOCATED ON THE SOUTHWEST CORNER OF PROSPECT AVENUE N.E. AND MORRIS STREET N.E., ELEVATION = 5528.32 FEET (NAVD 1988)
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8. THE CONTRACTOR SHALL FIELD VERIFY LOCATION AND SIZE OF ALL UTILITIES PRIOR TO CONSTRUCTION.
9. THE SUBJECT PROPERTY IS LOCATED WITHIN ZONE X. DESIGNATING AREAS DETERMINED TO BE OUTSIDE THE 100-YEAR FLOOD PLANE ACCORDING TO THE FLOOD INSURANCE RATE MAP, ALBUQUERQUE, NEW MEXICO AND UNINCORPORATED AREAS PER MAP NO 35001C 357G.
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12. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE AND REASONABLE MEASURES TO PREVENT SEDIMENT OR POLLUTANT LADEN STORM WATER FROM EXITING THE SITE DURING CONSTRUCTION. STORMWATER MAY BE DISCHARGED IN A MANNER, WHICH COMPLIES WITH THE APPROVED GRADING AND DRAINAGE PLAN.
13. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE MEASURES TO PREVENT THE MOVEMENT OF CONSTRUCTION RELATED SEDIMENT, DUST, MUD, POLLUTANTS, DEBRIS, WASTE, ETC FROM THE SITE BY WIND, STORM FLOW OR ANY OTHER METHOD EXCLUDING THE INTENTIONAL, LEGAL TRANSPORTATION OF SAME IN A MANNER ACCEPTABLE BY THE CITY.
14. THE CONTRACTOR SHALL NOT DISTURB AREAS OUTSIDE THE AREAS SHOWN AS "SLOPE LIMITS" ON THE GRADING AND DRAINAGE PLAN.
15. AS OF MARCH 10, 2003, THE USEPA REQUIRES NPDES PERMIT COVERAGE FOR STORM WATER DISCHARGES FROM CONSTRUCTION PROJECTS (COMMON PLANS OF DEVELOPMENT) THAT WILL RESULT IN THE DISTURBANCE (OR RE-DISTURBANCE) OF ONE OR MORE ACRES, INCLUDING EXPANSIONS OF TOTAL LAND AREA. THE DEVELOPER SHOULD BE MADE AWARE THAT THE USEPA REQUIRES THAT ALL "OPERATORS" (SEE FEDERAL REGISTER/VOL. 63, NO. 128 / MONDAY, JULY 6, 1999 PG 36509) OBTAIN NPDES PERMIT COVERAGE FOR CONSTRUCTION PROJECTS. GENERALLY THIS MEANS THAT AT LEAST TWO PARTIES WILL REQUIRE PERMIT COVERAGE. THE OWNER/DEVELOPER OF THIS CONSTRUCTION PROJECT WHO HAS OPERATIONAL CONTROL OVER THE PROJECT SPECIFICATIONS, THE GENERAL CONTRACTOR WHO HAS DAY-TO-DAY OPERATIONAL CONTROL OF THOSE ACTIVITIES AT THE SITE, WHICH ARE NECESSARY TO ENSURE COMPLIANCE WITH THE STORM WATER POLLUTION PLAN AND OTHER CONDITIONS, AND POSSIBLY OTHER "OPERATORS" THAT WILL REQUIRE APPROPRIATE NPDES PERMIT COVERAGE FOR THIS PROJECT.
16. THE CONTRACTOR SHALL SUBMIT A SEED MIX DESIGN TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO STARTING THE SEEDING ON THE PROJECT. THE SEED MIX DESIGN SHALL BE A SEED MIX RECOMMENDED BY THE NRCS FIELD OFFICE REPRESENTATIVE THAT IS APPROPRIATE FOR THE PROJECT LOCATION. ALL DISTURBED AREAS WITH SLOPES LESS THAN 3:1 SHALL RECEIVE CLASS "A" SEEDING. ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR GREATER THAN 3:1 SHALL RECEIVE STEEP SLOPE SEEDING. THE STEEP SLOPE SEEDING SHALL CONSIST OF SEEDING IN CONJUNCTION WITH A 100% COCONUT FIBER BLEND EROSION BLANKET (NORTH AMERICAN GREEN C125) OR APPROVED EQUAL. ALL MATERIALS, EQUIPMENT AND LABOR ASSOCIATED WITH THE PROPER CONSTRUCTION OF THE STEEP SLOPE SEEDING WILL BE CONSIDERED INCIDENTAL AND NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR THIS MATERIAL OR WORK. THE COCONUT FIBER EROSION BLANKET AND ASSOCIATED SEEDING SHALL BE CONSTRUCTED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND APPROVED BY THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY SPOT ELEVATIONS ON THE GRADING AND DRAINAGE PLAN WHICH APPEAR TO BE AMBIGUOUS OR DO NOT MEET THE INTENT OF THE GRADING AND DRAINAGE PLAN.
18. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DOES NOT MEET ADA ACCESSIBILITY REQUIREMENTS. ALL SIDEWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 2.0%, ALL SIDEWALKS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 5.0% AND ALL RAMPS SHALL HAVE A MAXIMUM LONGITUDINAL SLOPE OF 15:1.
19. ALL SIDEWALKS AND CONCRETE FLATWORK SHALL HAVE A MINIMUM OF 0.5% SLOPE. CONTRACTOR SHALL CONTACT PROJECT ENGINEER IF THERE ARE SIDEWALKS OR CONCRETE FLATWORK WHICH DO NOT MEET THIS REQUIREMENT.
20. THE CONTRACTOR SHALL SUMBIT MATERIAL SUBMITTALS, CUT SHEETS AND SHOP DRAWINGS FOR ALL CIVIL RELATED ITEMS FOR REVIEW PRIOR TO CONSTRUCTION.
21. THIS PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THECITY OF ALBUQUERQUE STANDARD SPECIFICATIONS.
22. CONTRACTOR SHALL ADJUST THE STORM DRAIN LINES FROM THE ROOF DRAINS AS NECESSARY TO AVOID THE NEW FIRE LINE OR ANY OTHER PROPOSED OR EXISTING UTILITIES.
23. THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR CLARIFICATION IF THERE ARE ANY CONFLICTS BETWEEN EXISTING OR PROPOSED UTILITIES ON THIS PROJECT PRIOR TO CONSTRUCTION.

DRAINAGE DATA

Percipitation Zone 4 - 10-year Storm P(360) = 1.93 in P(1440) = 2.44 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(10-6) (af)	V(10-24) (af)	Q(10) (cfs)
Existing Conditions									
B	2.35	0.00	0.10	0.80	1.45	1.31	0.257	0.317	7.13
A-1	1.52	0.00	0.00	1.00	0.52	1.06	0.134	0.156	4.12
Total	**3.87**								**11.25**
Proposed Conditions									
B	2.35	0.00	0.10	0.78	1.47	1.32	0.258	0.320	7.16
A-1-A	0.24	0.00	0.00	0.10	0.14	1.29	0.026	0.032	0.73
A-1-B	0.46	0.00	0.00	0.18	0.28	1.31	0.050	0.062	1.41
A-1-C	0.82	0.00	0.00	0.56	0.26	1.03	0.071	0.082	2.19
Total	**3.87**								**11.48**

Percipitation Zone 4 - 100-year Storm P(360) = 2.92 in P(1440) = 3.65 in

Basin	Basin Area (Ac)	Land Treatment Factors A (Acres)	B (Acres)	C (Acres)	D (Acres)	Ew (in)	V(100-6) (af)	V(100-24) (af)	Q(100) (cfs)
Existing Conditions									
B	2.35	0.00	0.10	0.80	1.45	2.17	0.425	0.516	10.89
A-1	1.52	0.00	0.00	1.00	0.52	1.86	0.236	0.269	6.46
Total	**3.87**								**17.35**
Proposed Conditions									
B	2.35	0.00	0.10	0.78	1.47	2.18	0.427	0.519	10.92
A-1-A	0.24	0.00	0.00	0.10	0.14	2.15	0.043	0.052	1.11
A-1-B	0.46	0.00	0.00	0.18	0.28	2.18	0.084	0.101	2.14
A-1-C	0.82	0.00	0.00	0.56	0.26	1.83	0.125	0.142	3.45
Total	**3.87**								**17.62**

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VERLYN A. MILLER
NEW MEXICO
14507
REGISTERED PROFESSIONAL ENGINEER

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

DRAINAGE PLAN REPORT AND CALCULATIONS

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101K.dwg
revisions:
1 9-16-2013
2 COA HYDROLOGY SUBMIT
3

C-102K

project no. 08-007

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LAND DEVELOPMENT SECTION

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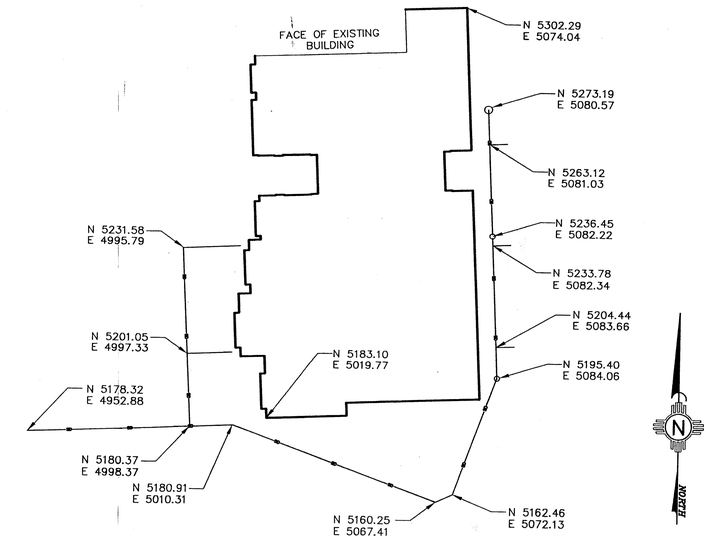
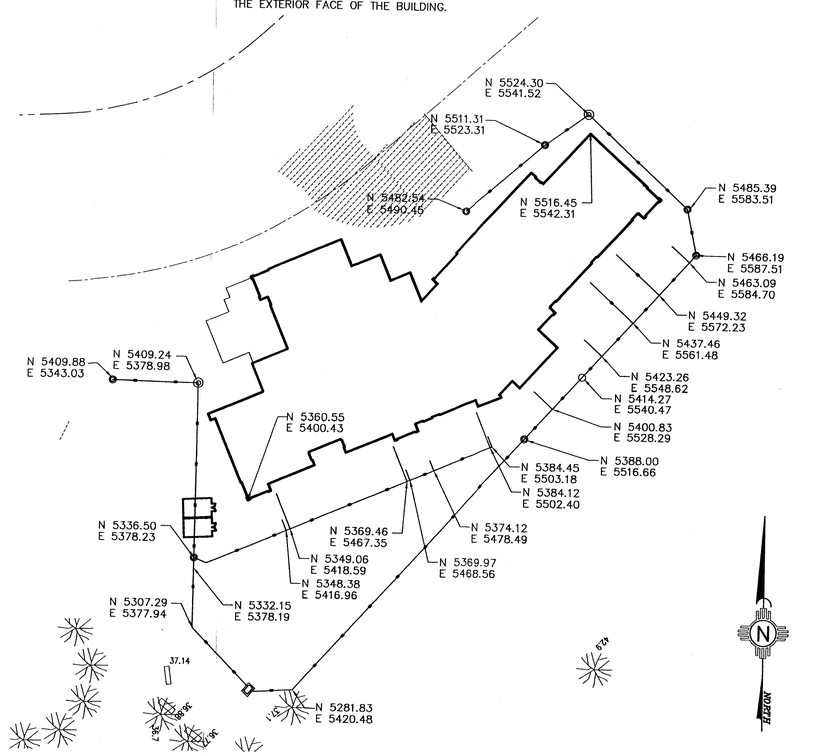
APS PROJECT NO: 0240.0005

A1 KINDERGARTEN ENLARGED GRADING AND DRAINAGE PLAN
SCALE: 1" = 10'



D4 ADMINISTRATION HORIZONTAL CONTROL DETAIL
SCALE: 1" = 20'

NORTHING AND EASTING COORDINATES ARE FOR THE EXTERIOR FACE OF THE BUILDING.



A4 KINDERGARTEN HORIZONTAL CONTROL DETAIL
SCALE: 1" = 30'

NORTHING AND EASTING COORDINATES ARE FOR THE EXTERIOR FACE OF THE BUILDING.

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COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS

ALBUQUERQUE PUBLIC SCHOOLS

MISCELLANEOUS DETAILS

date: 12-13-13
drawn by: JAL
checked by: RAL
file name: 08-007_C-101A.dwg
revisions:
1 9-18-2013
2 Revisions to COA Hydrology
3

C-501

project no. 08-007

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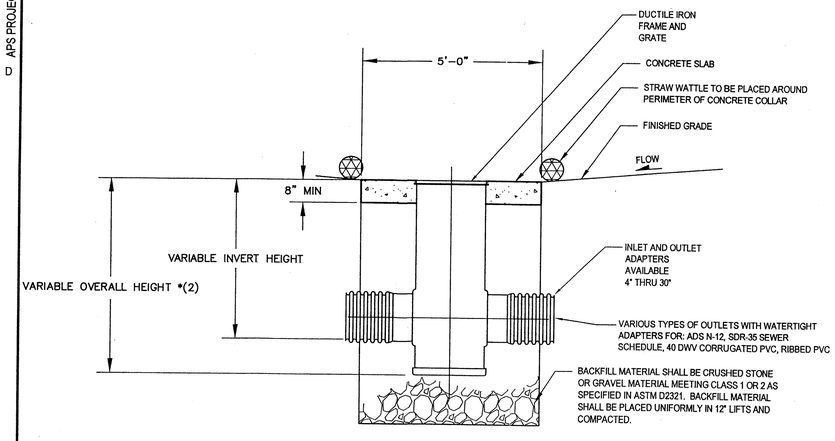
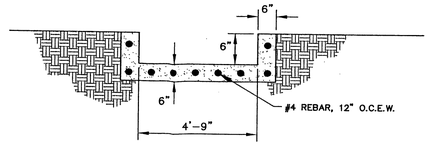
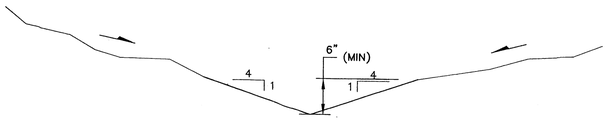
APS PROJECT NO: 0240.0005



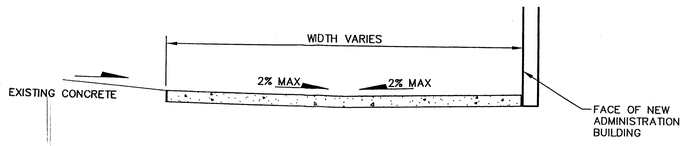
C1 DRAIN BASIN CONCRETE COLLAR AND STRAW WATTLE
SCALE: NOT TO SCALE



D3 CONCRETE CHANNEL
SCALE: NOT TO SCALE

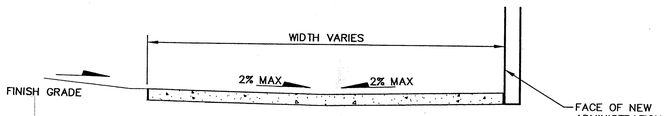


C3 TYPICAL EARTHEN SWALE
SCALE: NOT TO SCALE



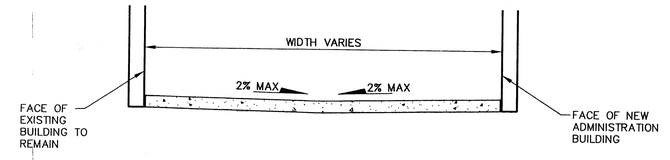
D4 TYPICAL SIDEWALK SECTION 'C1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



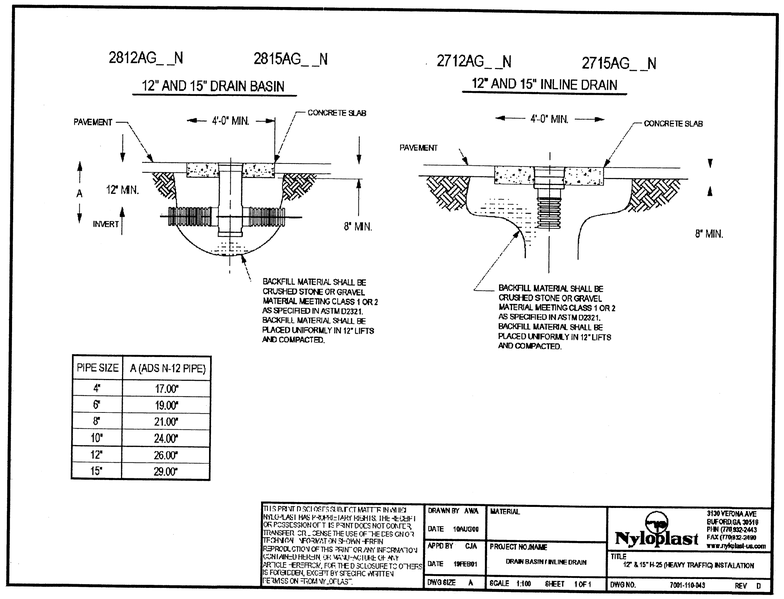
C4 TYPICAL SIDEWALK SECTION 'B1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



B4 TYPICAL SIDEWALK SECTION 'A1'
SCALE: NOT TO SCALE

SEE ARCHITECTURAL SHEETS FOR SECTION INFORMATION AND JOINT PATTERN.



PIPE SIZE	A (ADS N-12 PIPE)
4"	17.00"
6"	19.00"
8"	21.00"
10"	24.00"
12"	26.00"
15"	29.00"

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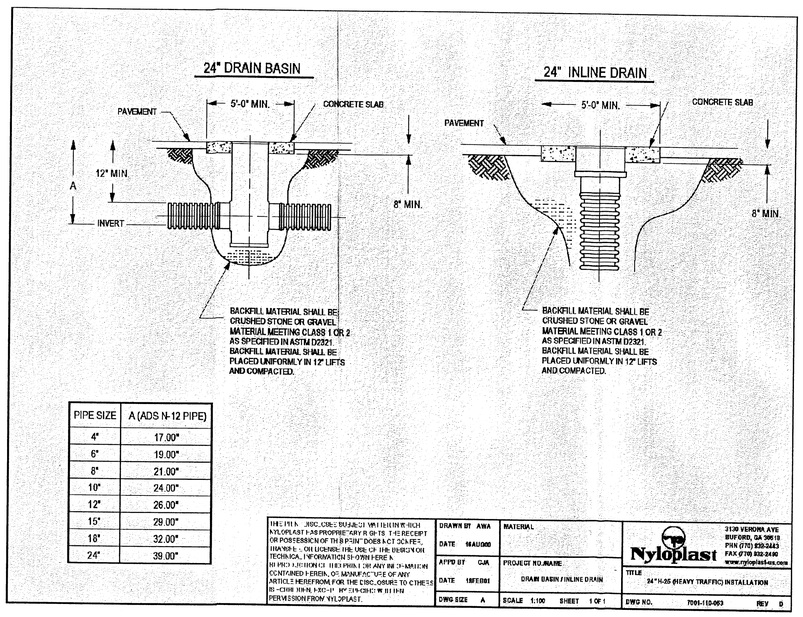
DATE 10AUG06			
APP'D BY CJA	PROJECT NO./NAME DRAIN BASIN/INLINE DRAIN	TITLE 12" & 15" H-25 (HEAVY TRAFFIC) INSTALLATION	
DATE 18FEB01			
DWG SIZE A	SCALE 1:100 SHEET 1 OF 1	DWG NO. 7001-110-043	REV D

A1 NYLOPLAST DRAIN BASIN DETAIL
SCALE: NOT TO SCALE



PIPE SIZE	A (ADS N-12 PIPE)
4"	17.00"
6"	19.00"
8"	21.00"
10"	24.00"
12"	26.00"
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18"	32.00"
24"	39.00"

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DATE 10AUG06			
APP'D BY CJA	PROJECT NO./NAME DRAIN BASIN/INLINE DRAIN	TITLE 24" H-25 (HEAVY TRAFFIC) INSTALLATION	
DATE 18FEB01			
DWG SIZE A	SCALE 1:100 SHEET 1 OF 1	DWG NO. 7001-110-063	REV D

NOTE: DRAIN BASIN COVERS SHALL BE ADA COMPLIANT AND PEDESTRIAN RATED.

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JERILYN A. MILLER
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12/12/13
REGISTERED PROFESSIONAL ENGINEER

COLLET PARK ELEMENTARY ADDITIONS & RENOVATIONS
ALBUQUERQUE PUBLIC SCHOOLS

MISCELLANEOUS DETAILS

date: 12-13-13
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file name: 08-007_C-101A.dwg
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project no. 08-007

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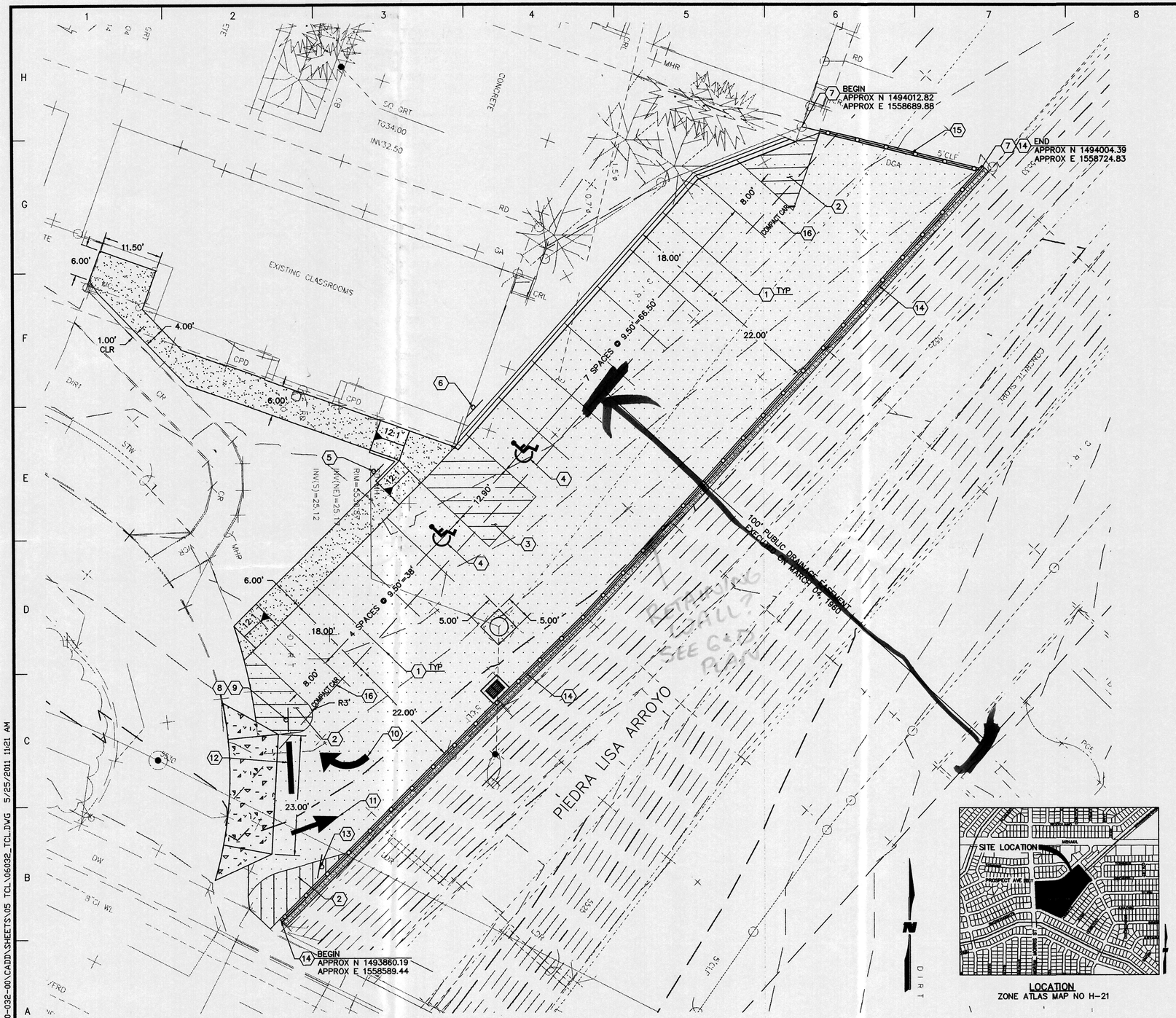


A1 TRAFFIC CIRCULATION LAYOUT
SCALE: 1" = 10'

GENERAL NOTES

1. TOPOGRAPHIC SURVEY IN NOT TO DATE, ANY DISCREPANCIES CONTACT THE ENGINEER.
2. REFER TO LATEST MUTCD EDITION FOR SIGNS REFERENCED ON THIS SHEET.

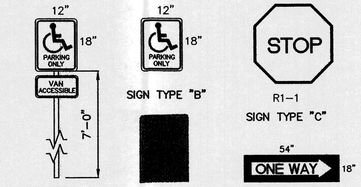
SHEET KEY NOTES

1. INSTALL 4"W SOLID WHITE STRIPE.
2. INSTALL 4"W SOLID WHITE DIAGONAL STRIPE.
3. INSTALL 4"W SOLID ADA BLUE DIAGONAL STRIPE @ 2.50' OC.
4. INSTALL ADA PAVEMENT MARKING AND SYMBOL FOR HANDICAP PARKING. SEE DETAIL F7/C-501.
5. INSTALL SIGN TYPE "A". SEE DETAIL THIS SHEET.
6. INSTALL SIGN TYPE "B". SEE DETAIL THIS SHEET.
7. REINSTALL CHAIN LINK FENCE. SEE DETAIL F5/C-502.
8. INSTALL SIGN TYPE "C". SEE DETAIL THIS SHEET.
9. INSTALL SIGN TYPE "D". SEE DETAIL THIS SHEET.
10. INSTALL 36"H WHITE TRAFFIC RIGHT DIRECTIONAL ARROW.
11. INSTALL 36"H WHITE TRAFFIC THRU ARROW.
12. INSTALL 12"W SOLID WHITE STOP BAR, 10' LONG.
13. REINSTALL SIGN TYPE "E". SEE DETAIL THIS SHEET.
14. REINSTALL CHAIN LINK FENCE. SEE DETAIL A1/C-502.
15. REINSTALL CHAIN LINK DOUBLE GATE.
16. INSTALL SOLID TRAFFIC WHITE "COMPACT CAR" PAVEMENT MARKING.

LEGEND

— ——— —	EXISTING INDEX CONTOUR
— ——— —	EXISTING INTERMEDIATE CONTOUR
— ——— —	EXISTING DRAINAGE ROW EASEMENT
SW	EXISTING SIDEWALK
TC	EXISTING TOP OF CURB ELEVATION
FL	EXISTING FLOWLINE ELEVATION
CLD	EXISTING CENTERLINE OF DOOR
TCO	EXISTING TOP OF CONCRETE
SQ GRT	EXISTING SQUARE GRATE
CLF	EXISTING CHAIN LINK FENCE
STW	EXISTING STONE WALL
CRL	EXISTING CRAWL SPACE
PB	EXISTING PARKING BUMPER
RD	EXISTING ROOF DRAIN
MSN	EXISTING METAL SIGN
SP	EXISTING STEEL POLE
CW	EXISTING CONCRETE WALL
MC	EXISTING METAL COLUMN
CO	EXISTING CLEAN OUT
MHR	EXISTING METAL HANDRAIL
DGA	EXISTING DOUBLE GATE
	PROPOSED 3" ASPHALT
	PROPOSED 4" PCC
	PROPOSED 6" PCC
	PROPOSED 4" CRUSHED AGGREGATE
	REINSTALLED FENCE

SIGN LEGEND



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CONSULTANTS

SEAL
BRIGITTE FUHLENDORF
NEW MEXICO
15101
REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME
COLLET PARK
ELEMENTARY SCHOOL
PARKING LOT
IMPROVEMENTS

MARK	DESCRIPTION	DATE

PROJECT NO:	1060003200
DESIGNED BY:	RJF
DRAWN BY:	JEM
CHECKED BY:	BMF
DATE:	MAY 2011

SHEET TITLE
TRAFFIC CIRCULATION LAYOUT

SHEET NO:
C-102

RECEIVED
MAY 26 2011
HYDROLOGY SECTION

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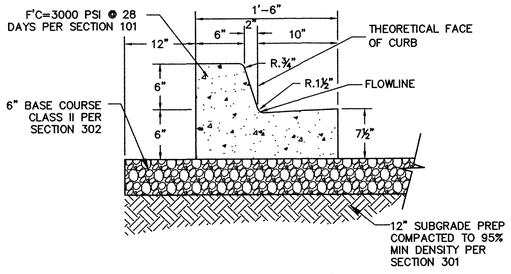
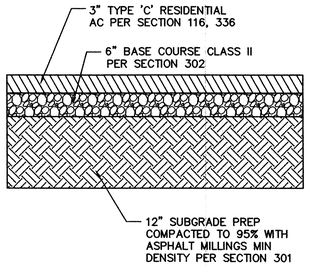
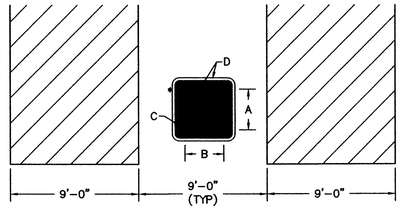


NOTE: DIMENSION AT ROUNDED CORNERS MEASURED TO INTERSECTION OF STRAIGHT LINES.

F2 MEDIAN C&G
SCALE: NTS



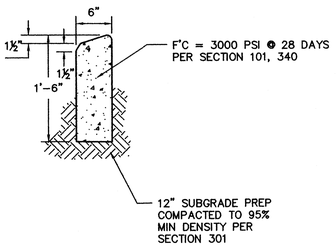
F5 3" ASPHALT SECTION
SCALE: 1" = 1'



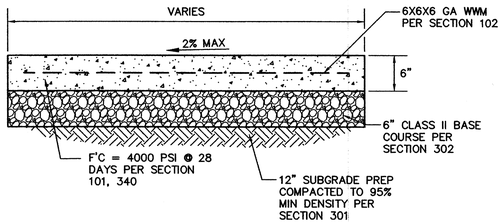
CONSTRUCTION NOTES:
- A HEIGHT OF SYMBOL: MIN = 28" SPECIAL = 41"
- B WIDTH OF SYMBOL: MIN = 24" SPECIAL = 36"
- C BACKGROUND BLUE IN COLOR
- D ADA SYMBOL & BORDER WHITE IN COLOR

*STROKE WIDTH: SPECIAL = 4"

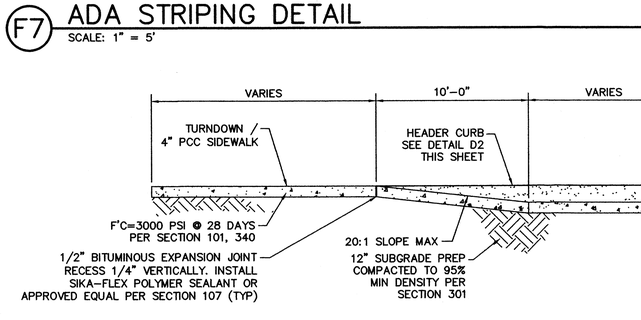
F7 ADA STRIPING DETAIL
SCALE: 1" = 5'



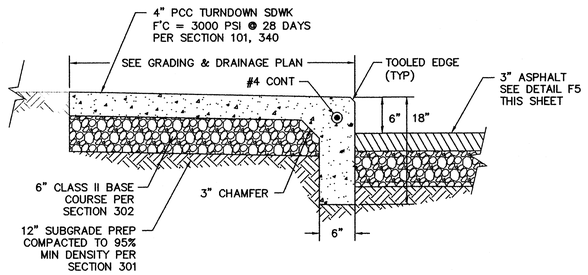
D2 HEADER CURB
SCALE: NTS



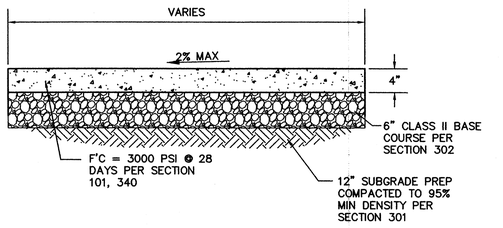
D4 6" PCC DETAIL
SCALE: NTS



D7 ADA UNIDIRECTIONAL RAMP
SCALE: NTS

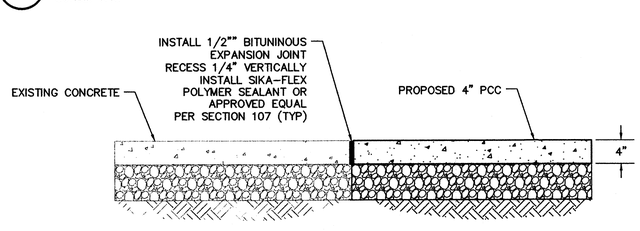


A1 TURNDOWN SIDEWALK
SCALE: 1" = 1'



CONSTRUCTION NOTES
1. WHEN ABUTTING TO VERTICAL WALLS, BENCHES OR BUILDINGS, INSTALL ½" BITUMINOUS EXPANSION JOINT. RECESS ¼" VERTICALLY. INSTALL SIKA-FLEX POLYMER SEALANT OR APPROVED EQUAL PER SECTION 107 (TYP)
2. INSTALL CONTRACTION JOINTS AT 6'-0" OC
3. LIGHT BROOM FINISHED CONCRETE SURFACE REQUIRED.

A4 4" PCC DETAIL
SCALE: NTS



CONSTRUCTION NOTES
1. WHEN ABUTTING TO VERTICAL WALLS, BENCHES OR BUILDINGS, INSTALL 1/2" BITUMINOUS EXPANSION JOINT. RECESS 1/4" VERTICALLY. INSTALL SIKA-FLEX POLYMER SEALANT OR APPROVED EQUAL PER SECTION 107 (TYP).
2. INSTALL CONTRACTION JOINTS @ 6'-0" OC
3. LIGHT BROOM FINISHED CONCRETE SURFACE REQUIRED.

A7 OLD/NEW CONCRETE JOINT DETAIL
SCALE: NTS

WILSON & COMPANY
4900 LANG AVENUE N.E.
ALBUQUERQUE, NEW MEXICO 87109
PH (505) 348-4000
FAX (505) 348-4072
www.wilsonco.com

CONSULTANTS

SEAL

PROJECT NAME
COLLET PARK ELEMENTARY SCHOOL PARKING LOT IMPROVEMENTS

MARK	DESCRIPTION	DATE

PROJECT NO:	1060003200
DESIGNED BY:	RJF
DRAWN BY:	JEM
CHECKED BY:	BMF
DATE:	MAY 2011

SHEET TITLE
DETAILS

SHEET NO:
C-501

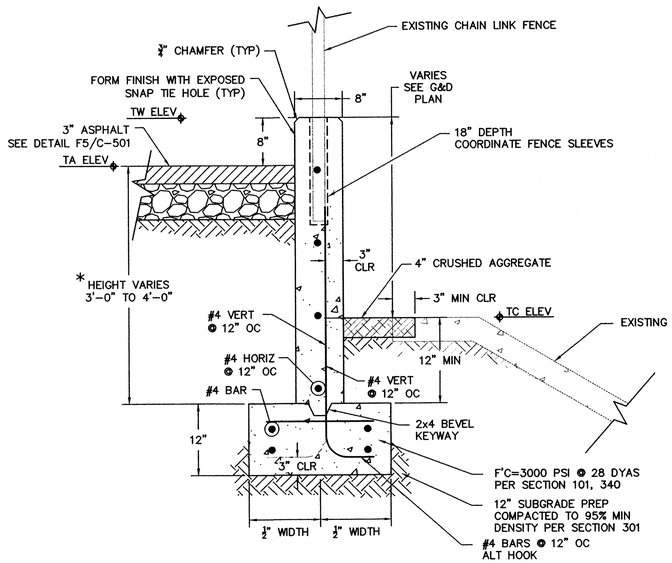
M:\IDS\10-600-032-00\CADD\SHEETS\04 DTLS\06032_DTL01.DWG 5/25/2011 10:25 AM

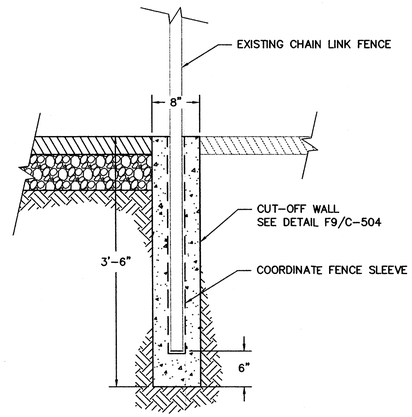
RETAINING WALL GENERAL NOTES:

1 RETAINING WALLS SHALL BE F'C=3000 PSI @ 28 DAYS PER SECTION 101, 340.

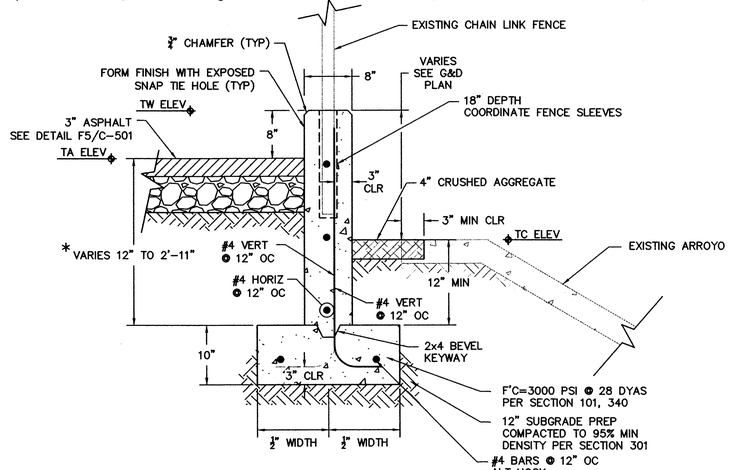
2 1/2" EXPANSION JOINTS TO BE RECESSED 1/4" VERTICALLY. INSTALL POLYMER SEALANT OR APPROVED EQUAL.

RETAINING WALL DETAIL		
WALL TYPE	* HEIGHT (FT)	FOOTING WIDTH (FT)
B	1'-0" TO 1'-6"	1'-0"
B	1'-7" TO 2'-11"	2'-0"
A	3'-0" TO 4'-0"	2'-6"

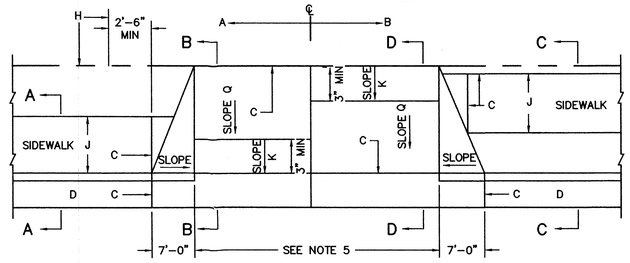




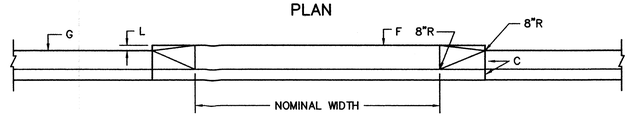
F5 CUT-OFF WALL/FENCE DETAIL
SCALE: NTS



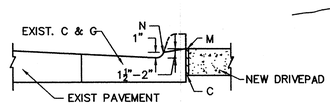
F7 RETAINING WALL TYPE "B" DETAIL
SCALE: NTS

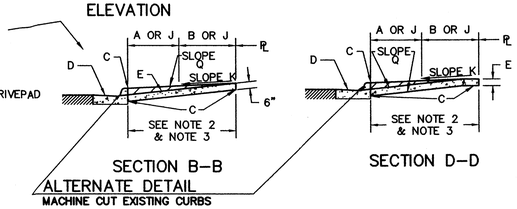


PLAN



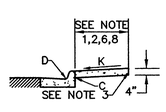
ELEVATION



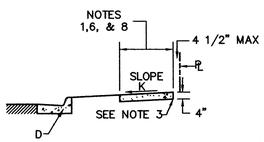


SECTION B-B
ALTERNATE DETAIL
MACHINE CUT EXISTING CURBS

SECTION D-D



SECTION A-A



SECTION C-C

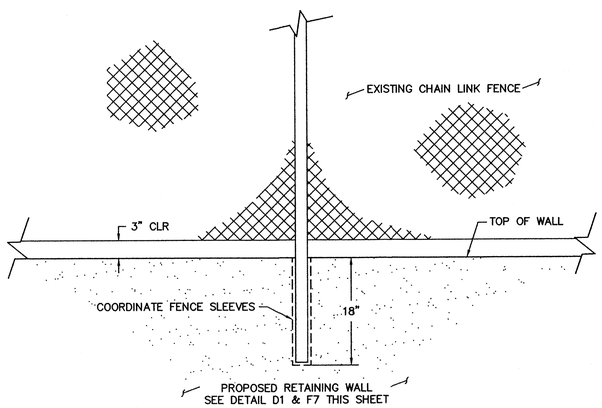
GENERAL NOTES:

1. DEVIATIONS FROM THESE STDS. SHALL BE SUBMITTED TO THE ENGINEER AND/OR TRAFFIC ENGR. FOR APPROVAL PRIOR TO CONSTRUCTION.
2. REQUEST FOR SIDEWALK VARIANCES SHALL BE SUBMITTED TO THE DEVELOPMENT REVIEW BOARD.
3. USE 1/2" EXP JOINT WHERE SIDEWALK OR DRIVEPAD ABUTS BLDGS, FENCES, WALLS OR OTHER IMMOVABLE OBJECTS.
4. ALL DRIVEPADS SHALL BE A MIN OF 6.5' IN DEPTH OR SHALL BE CONSTRUCTED FROM BACK OF CURB TO P/L, WHICHEVER IS GREATER.
5. DRIVEPADS WIDER THAN 18' (NOMINAL) SHALL HAVE 1/2" EXP JOINT AT MIDPOINT. DRIVEPADS WIDER THAN 36' SHALL HAVE 1/2" EXP JOINT 18' MAX BETWEEN JOINT EQUALLY SPACED.
6. CURB TYPE SIDEWALK SHALL BE USED ONLY WHEN VARIANCE IS APPROVED.
7. FOR SIDEWALK WIDTH, SEE CHAP 23 OF THE DEVELOPMENT PROCESS MANUAL.
8. SUBGRADE UNDER SIDEWALK & DRIVEPAD SHALL BE COMPACTED AS PER SECTION 301
9. ADA-AMERICANS WITH DISABILITY ACT.

CONSTRUCTION NOTES:

A. CURB TYPE SIDEWALK.
B. OFFSET SIDEWALK.
C. 1/2" EXP JOINT ADJUST TO FIELD CONDITIONS ON REPLACEMENT WORK.
D. CURB & GUTTER.
E. SLOPE TO BE ADJUSTED TO PROVIDE A UNIFORM TRANSITION BETWEEN SIDEWALK & DRIVEPAD.
F. TOP OF DRIVEPAD.
G. TOP OF CURB.
H. PROPERTY LINE.
J. VARIABLE WIDTH.
K. SLOPE 1(VERTICAL) TO 50(HORIZONTAL)
L. THE FINISH GRADE ELEVATION DIFFERENCE BETWEEN TOP OF DRIVEPAD AT PROPERTY LINE AND TOP OF CURB AS DETERMINED BY A SLOPE OF 1(VERTICAL) TO 50(HORIZONTAL) FROM TOP OF CURB TO TOP OF DRIVEPAD. AND ANY DEVIATION FROM THIS SLOPE MUST BE APPROVED BY THE CITY ENGINEER.
M. SAW CUT EXISTING CONCRETE FROM BACKSIDE OF CURB WITH SLOPE TOWARD FLOWLINE.
N. EXPOSED CUT EDGES TO BE GROUND SMOOTH/ ROUNDED TO REMOVE SHARP EDGE.
P. OUTSIDE EDGE OF SIDEWALK.
Q. SLOPE REQUIRED TO MEET GIVEN OR SET BOUNDARY ELEVATIONS(PROPERTY LINE OR DOC, ETC.)

D1 RETAINING WALL TYPE "A" DETAIL
SCALE: NTS



A1 EXISTING FENCE W/ RETAINING WALL DETAIL
SCALE: NTS

A5 DRIVE PAD DETAIL
SCALE: NTS

WILSON & COMPANY
4900 LANG AVENUE N.E.
ALBUQUERQUE, NEW MEXICO 87109
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CONSULTANTS

SEAL

BRIGITTE FULLERTON NEW MEXICO 15102 PROFESSIONAL ENGINEER REGISTERED PROFESSIONAL

PROJECT NAME
COLLET PARK ELEMENTARY SCHOOL PARKING LOT IMPROVEMENTS

MARK	DESCRIPTION	DATE

PROJECT NO:	1060003200
DESIGNED BY:	RJF
DRAWN BY:	JEM
CHECKED BY:	BMF
DATE:	MAY 2011

SHEET TITLE
DETAILS

SHEET NO:
C-502

M:\IDS\10-600-032-00\CADD\SHEETS\04 DTLS\06032_DTL02.DWG 5/25/2011 11:29 AM

DRAINAGE REPORT

Site Location: Collet Park Elementary is located at 2100 Morris St., N.E. in Albuquerque, NM. It is bounded by Prospect Avenue the north and Snow Heights Boulevard on the south.

Methodology: Section 22.2 Part A of the City of Albuquerque DPM was followed to calculate the peak rate of discharge and volume of runoff generated for Basin A-1. The 100-year frequency 24-hour rainfall volume was used as the design storm. The site is located in Zone 4.

Existing Conditions: The site is developed as an elementary school site with slopes decreasing from east to west. The total area of the property is approximately 10.61 acres. The property is divided into nine basins. Basins C, G and H comprise approximately 5.37 acres. Basins C and G drain directly into the streets. Basin H drains directly into the Piedra Lisa Arroyo. Basins A, A-1, B, D, E, and F comprise the remaining 5.24 acres and drain to the Piedra Lisa Arroyo through the property's storm drain system.

EXISTING CONDITIONS

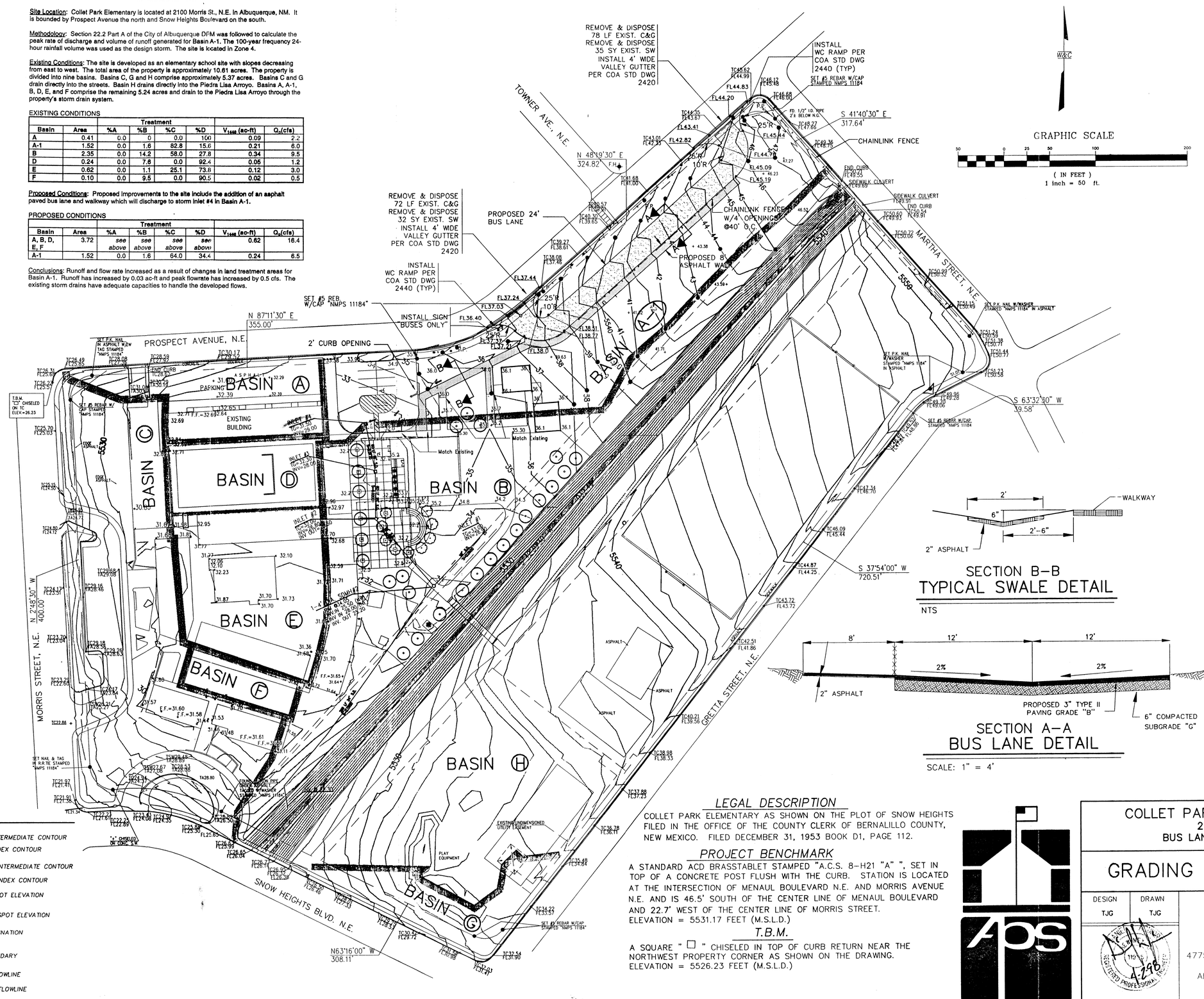
Basin	Area	Treatment %A	%B	%C	%D	V_{1440} (ac-ft)	Q_p(cfs)
A	0.41	0.0	0	0.0	100	0.09	2.2
A-1	1.52	0.0	1.6	82.8	15.6	0.21	6.0
B	2.35	0.0	14.2	58.0	27.8	0.34	9.5
D	0.24	0.0	7.8	0.0	92.4	0.05	1.2
E	0.62	0.0	1.1	25.1	73.8	0.12	3.0
F	0.10	0.0	9.5	0.0	90.5	0.02	0.5

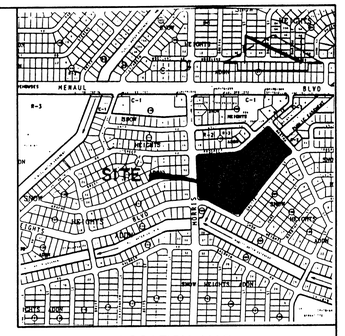
Proposed Conditions: Proposed improvements to the site include the addition of an asphalt paved bus lane and walkway which will discharge to storm inlet #4 in Basin A-1.

PROPOSED CONDITIONS

Basin	Area	Treatment %A	%B	%C	%D	V_{1440} (ac-ft)	Q_p(cfs)
A, B, D, E, F	3.72	see above	see above	see above	see above	0.62	16.4
A-1	1.52	0.0	1.6	64.0	34.4	0.24	6.5

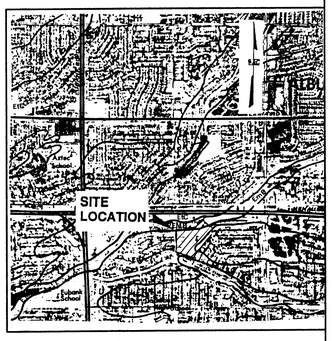
Conclusions: Runoff and flow rate increased as a result of changes in land treatment areas for Basin A-1. Runoff has increased by 0.03 ac-ft and peak flowrate has increased by 0.5 cfs. The existing storm drains have adequate capacities to handle the developed flows.





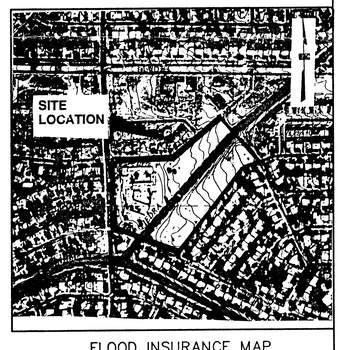
LOCATION MAP

ZONE ATLAS MAP NO. H-21



SOILS MAP

REFERENCE: SCS BERNALILLO COUNTY SOIL SURVEY SHEET NO. 22



FLOOD INSURANCE MAP

REFERENCE: FLOOD INSURANCE STUDY PANEL 25

SECTION B-B

TYPICAL SWALE DETAIL

NTS

SECTION A-A

BUS LANE DETAIL

SCALE: 1" = 4'

LEGEND

- 5539 — EXISTING INTERMEDIATE CONTOUR
- 5540 — EXISTING INDEX CONTOUR
- 5539 — PROPOSED INTERMEDIATE CONTOUR
- 5540 — PROPOSED INDEX CONTOUR
- 5359.15 — EXISTING SPOT ELEVATION
- 35.00TP — PROPOSED SPOT ELEVATION
- BASIN (B) — BASIN DESIGNATION
- BASIN BOUNDARY
- EXISTING FLOWLINE
- PROPOSED FLOWLINE

LEGAL DESCRIPTION

COLLET PARK ELEMENTARY AS SHOWN ON THE PLOT OF SNOW HEIGHTS FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO. FILED DECEMBER 31, 1953 BOOK D1, PAGE 112.

PROJECT BENCHMARK

A STANDARD ACD BRASSTABLET STAMPED "A.C.S. 8-H21 "A" ", SET IN TOP OF A CONCRETE POST FLUSH WITH THE CURB. STATION IS LOCATED AT THE INTERSECTION OF MENAUL BOULEVARD N.E. AND MORRIS AVENUE N.E. AND IS 46.5' SOUTH OF THE CENTER LINE OF MENAUL BOULEVARD AND 22.7' WEST OF THE CENTER LINE OF MORRIS STREET.
ELEVATION = 5531.17 FEET (M.S.L.D.)

T.B.M.

A SQUARE " □ " CHISELED IN TOP OF CURB RETURN NEAR THE NORTHWEST PROPERTY CORNER AS SHOWN ON THE DRAWING.
ELEVATION = 5526.23 FEET (M.S.L.D.)

RECEIVED APR 2 1998 DRAINAGE SECTION

COLLET PARK ELEMENTARY SCHOOL
2100 MORRIS ST. N.E.
BUS LANE AND WALKWAY ADDITION

GRADING & DRAINAGE PLAN

DESIGN	DRAWN	DATE
TJG	TJG	APRIL 1998

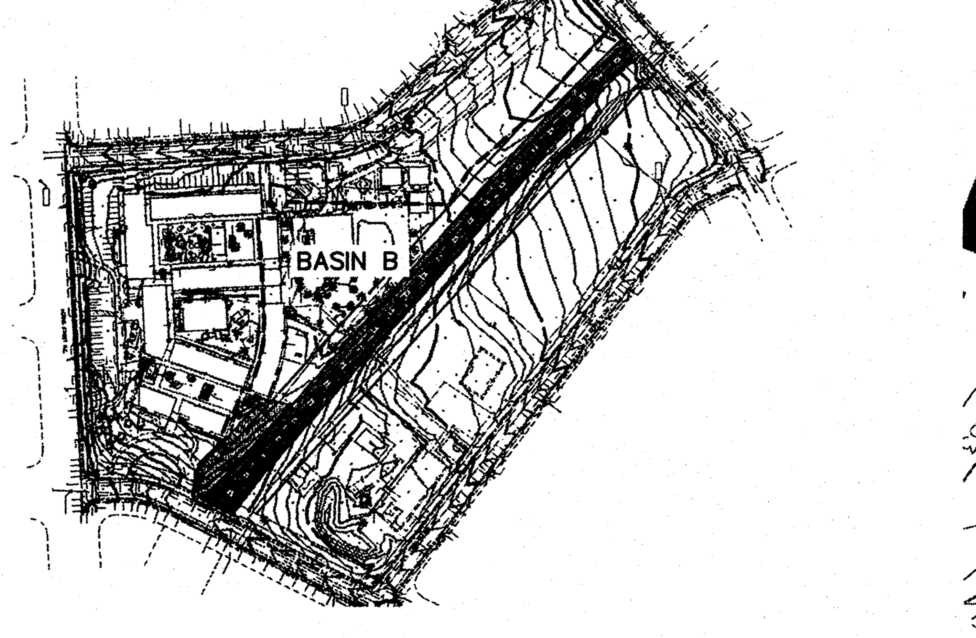
FILE NO. 98018

SHEET NO. 1 OF 1

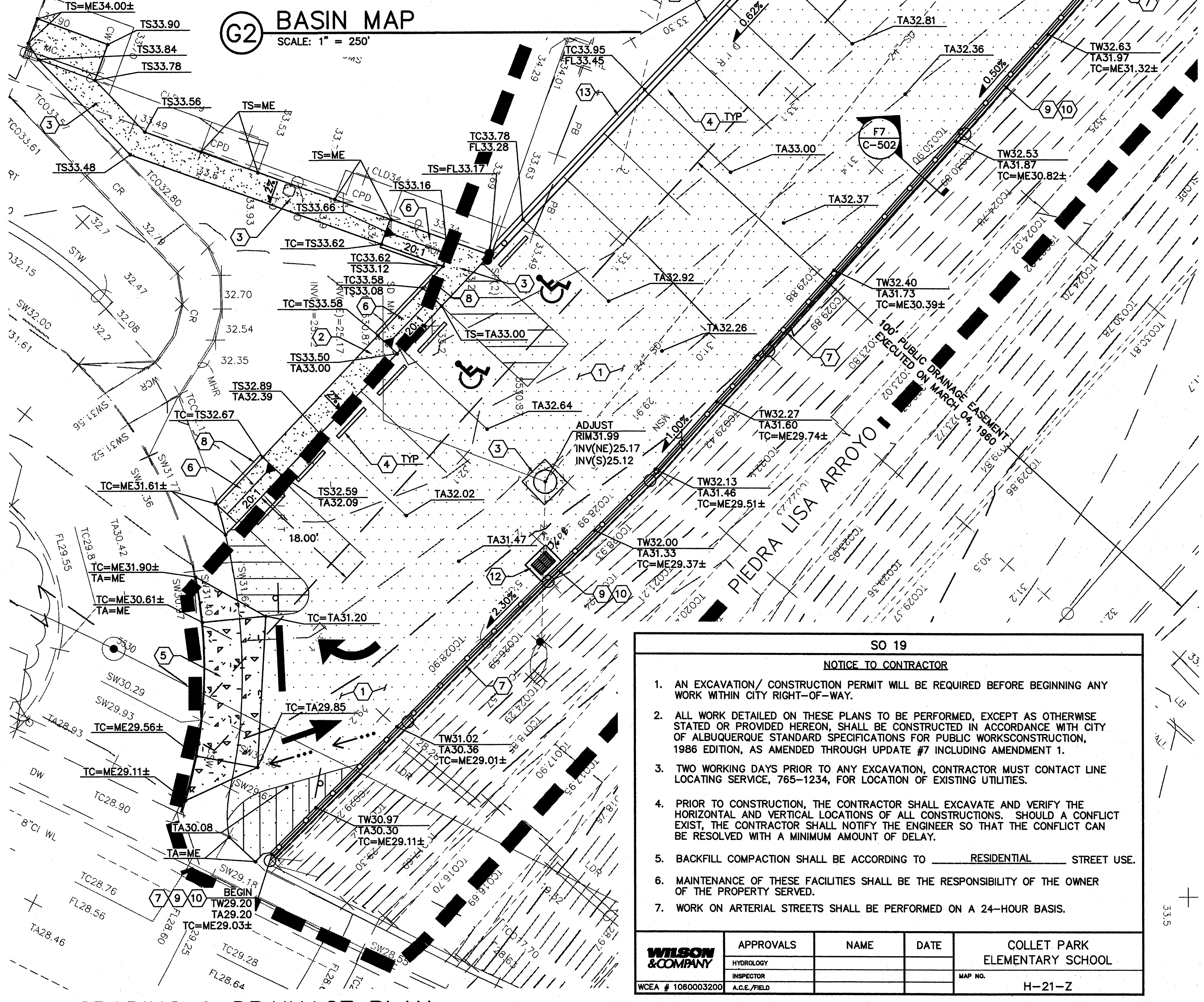
WILSON & COMPANY
4775 INDIAN SCHOOL ROAD N.E.
SUITE 200
ALBUQUERQUE, NEW MEXICO
87110
(505) 254-4000

REGISTERED PROFESSIONAL ENGINEER 11984 4-29-98

98018\WB18GD.DWG\02-12-98\P4S



(G2) BASIN MAP
SCALE: 1" = 250'



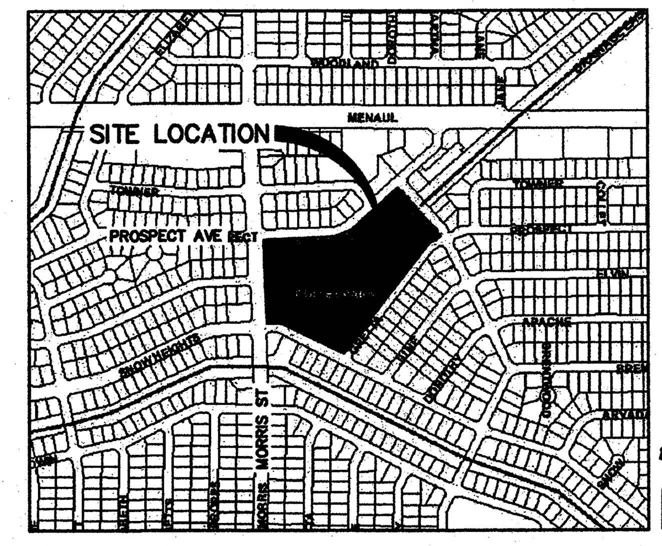
(A1) GRADING & DRAINAGE PLAN
SCALE: 1" = 10'

SO 19

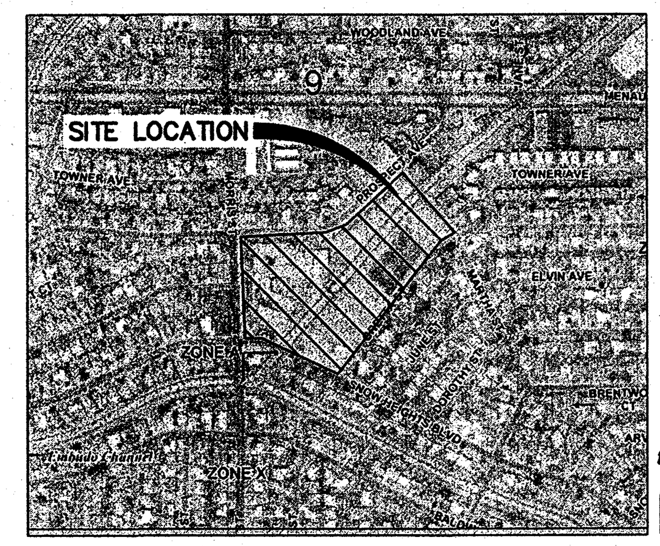
NOTICE TO CONTRACTOR

1. AN EXCAVATION/ CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY.
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 STANDARD SPECIFICATIONS FOR PUBLIC WORKSCONSTRUCTION, 1986 EDITION, AS AMENDED THROUGH UPDATE #7 INCLUDING AMENDMENT 1.
3. TWO WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
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. BACKFILL 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.

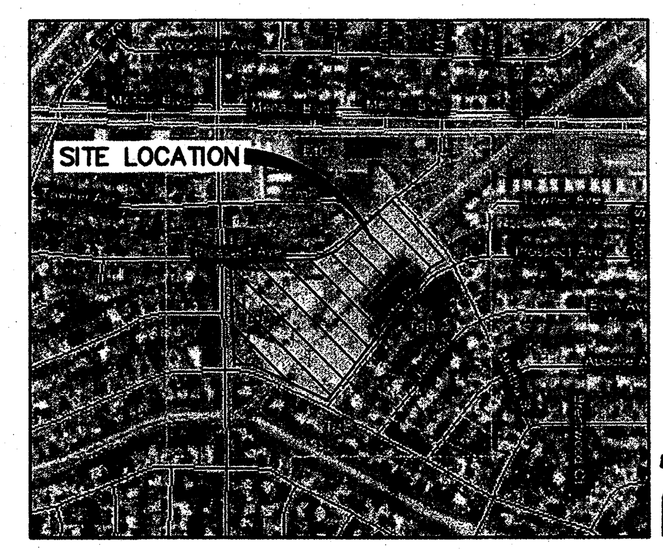
WILSON & COMPANY	APPROVALS	NAME	DATE	COLLET PARK ELEMENTARY SCHOOL
	HYDROLOGY			
	INSPECTOR			MAP NO.
WCEA # 1060003200	A.C.E./FIELD			H-21-Z



LOCATION
ZONE ATLAS MAP NO H-21



FLOOD INSURANCE RATE MAP
REFERENCE: FLOOD INSURANCE STUDY
PANEL 357 #35001C0357G



SOILS MAP
REFERENCE: HTTP://WEBSOILSURVEY.NRCS.USDA.GOV

PROJECT BENCHMARK:
ACS BRASS DISC STAMPED "2-H21", SET ON TOP OF A CONCRETE POST FLUSH WITH TOP OF CURB, LOCATED AT THE INTERSECTION OF MENAUL BLVD AND JUAN TABO BLVD
ELEV=5605.234 FT (NAVD 1988)

LEGAL DESCRIPTION:
COLLET PARK ELEMENTARY AS SHOWN ON THE PLOT SNOW HEIGHTS FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO. FILED DECEMBER 31, 1953 BOOK 01, PAGE 112.

SHEET KEY NOTES

1. INSTALL 3" ASPHALT. SEE DETAIL F5/C-501.
2. INSTALL 4" PCC TURNDOWN SIDEWALK. SEE DETAIL A1/C-501.
3. INSTALL 4" PCC. SEE DETAIL A4/C-501.
4. INSTALL CONCRETE WHEEL STOP. SEE DETAIL G8/C-501,
5. INSTALL DRIVE PAD. SEE DETAIL A5/C-502. per COA Spec 2426
6. INSTALL ADA UNIDIRECTIONAL RAMP. SEE DETAIL D7/C-501.
7. INSTALL 6" MOWSTRIP. SEE DETAIL G6/C-501.
8. INSTALL HEADER CURB. SEE DETAIL D2/C-501.
9. INSTALL RETAINING WALL. SEE DETAIL F7/C-502.
10. REINSTALL CHAIN LINK FENCE. SEE DETAIL A1/C-502.
11. REINSTALL CHAIN LINK FENCE. SEE DETAIL F5/C-502.
12. INSTALL SINGLE TYPE "D" INLET. SEE DETAIL A5/C-503.
RIM31.08
INV24.82
13. INSTALL MEDIAN CURB AND GUTTER. SEE DETAIL F2/C-501.

LEGEND

— — —	EXISTING INDEX CONTOUR
— — —	EXISTING INTERMEDIATE CONTOUR
— — —	EXISTING DRAINAGE ROW EASEMENT
SW	EXISTING SIDEWALK
TC	EXISTING TOP OF CURB ELEVATION
FL	EXISTING FLOWLINE ELEVATION
CLD	EXISTING CENTERLINE OF DOOR
TCO	EXISTING TOP OF CONCRETE
SQ GRT	EXISTING SQUARE GRATE
CLF	EXISTING CHAIN LINK FENCE
STW	EXISTING STONE WALL
CRL	EXISTING CRAWL SPACE
PB	EXISTING PARKING BUMPER
RD	EXISTING ROOF DRAIN
MSN	EXISTING METAL SIGN
SP	EXISTING STEEL POLE
CW	EXISTING CONCRETE WALL
MC	EXISTING METAL COLUMN
CO	EXISTING CLEAN OUT
MHR	EXISTING METAL HANDRAIL
DGA	EXISTING DOUBLE GATE
	PROPOSED 3" ASPHALT
	PROPOSED 4" PCC
	PROPOSED 6" PCC
←•••	FLOWLINE
	EXISTING BASIN
ME	MATCH EXISTING ELEVATION
FL	FLOWLINE ELEVATION
TA	TOP OF ASPHALT ELEVATION
TC	TOP OF CONCRETE/CURB ELEVATION
TS	TOP OF SIDEWALK ELEVATION
TW	TOP OF WALL ELEVATION

DRAINAGE REPORT

COLLET PARK ELEMENTARY SCHOOL PARKING LOT IMPROVEMENTS

Site Location: Collet Park Elementary is located at 2100 Morris St. N.E. in Albuquerque, NM. The school boundary is irregular and bounded by Prospect Avenue to the North, Morris Street to the west, Snow Heights Boulevard to the south, and east by Gretta Street & Martha Street.

Methodology: Wilson & Company utilized the hydrologic guidelines as described in Section 22.2 of the Albuquerque Development Process Manual (DMP). Tables and formulas in Part A of the DMP were utilized to compute the peak discharge and volumetric volume of the design storm. The design storm for the peak discharge and volumetric runoff is the 100-year, 6-hour and 100-year, 24-hour, respectively. The total volumetric runoff was computed as per section A.5. The peak discharges were computed as per section A.6. The site is located in Zone 4.

Existing Conditions: The site is developed with elementary school infrastructure including classroom buildings, paved parking lots, and playgrounds. A Master Grading and Drainage Plan was approved in 1994. The property was divided into nine basins, which are alphabetically identified. Since improvements are within Basin B, this report focuses only on the hydrologic net differences in this basin. Basin B drains to the Piedra Lisa Arroyo via storm drain and by surface flows. Table 1 below summarizes the existing peak discharge and runoff volume for Basin B.

Table 1: Existing Peak Discharge and Volumetric Runoff

Basin	Area (Ac)	Land Treatment Percentage (%)				$Q_{100yr,6hr}$	$V_{100yr,24hr}$
		A	B	C	D	(cfs)	(ac-ft)
B	2.17	0	2.8	35.7	61.5	10.1	0.476

Proposed Conditions: Proposed improvements to the site include the addition of an asphalt paved parking lot and concrete sidewalk. Runoff from the proposed improvement will be directed east to an 8" curb along Piedra Lisa Arroyo. A Type "D" inlet is proposed directly above the 24" pipe that outfalls to Piedra Lisa Arroyo. Runoff not intercepted by the inlet will exit through the proposed drivepad. Table 2 below summarizes the proposed peak discharge and runoff volume for Basin B.

Table 2: Proposed Peak Discharge and Volumetric Runoff

Basin	Area (Ac)	Land Treatment Percentage (%)				$Q_{100yr,6hr}$	$V_{100yr,24hr}$
		A	B	C	D	(cfs)	(ac-ft)
B	2.17	0	2.8	28.5	68.7	10.3	0.501

Conclusion: Runoff volume and flow rate increased as a result of changes in land treatments for Basin B. Runoff volume has increased by 0.025 ac-ft and the peak flow rate has increased by 0.2 cfs. The majority of the runoff developed from the proposed parking lot will discharge to the Piedra Lisa Arroyo via the proposed inlet and existing storm drain. Negligible flows will exit the site at the proposed drivepad.

RECEIVED
SEP 17 2010
HYDROLOGY SECTION

WILSON & COMPANY
4900 LANG AVENUE N.E.
ALBUQUERQUE, NEW MEXICO 87109
PH (505) 348-4000
FAX (505) 348-4072
www.wilsonco.com

CONSULTANTS

SEAL: BRIGITTE FULLER, NEW MEXICO, 15102, REGISTERED PROFESSIONAL ENGINEER, 9/17/10

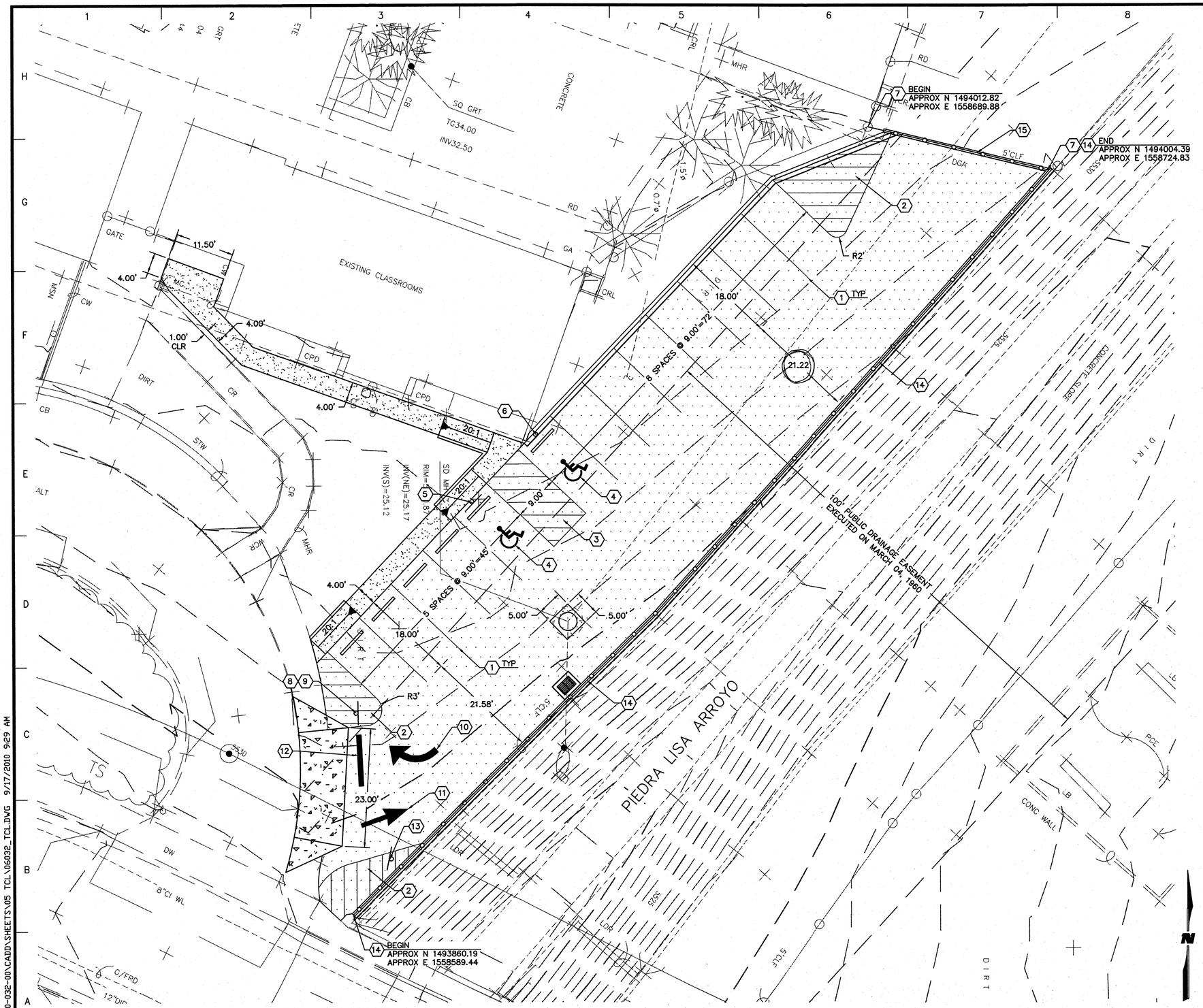
PROJECT NAME: COLLET PARK ELEMENTARY SCHOOL PARKING LOT IMPROVEMENTS

MARK	DESCRIPTION	DATE

PROJECT NO:	1060003200
DESIGNED BY:	RJF
DRAWN BY:	JEM
CHECKED BY:	BMF
DATE:	SEPTEMBER 2010

SHEET TITLE: GRADING & DRAINAGE PLAN

SHEET NO: C-103



A1 TRAFFIC CIRCULATION LAYOUT
SCALE: 1" = 10'

GENERAL NOTES

1. TOPOGRAPHIC SURVEY IN NOT TO DATE, ANY DISCREPANCIES CONTACT THE ENGINEER.
2. REFER TO LATEST MUTCD EDITION FOR SIGNS REFERENCED ON THIS SHEET.

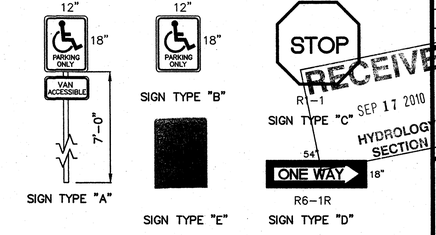
SHEET KEY NOTES

1. INSTALL 4"W SOLID WHITE STRIPE.
2. INSTALL 4"W SOLID WHITE DIAGONAL STRIPE.
3. INSTALL 4"W SOLID ADA BLUE DIAGONAL STRIPE @ 2.50' OC.
4. INSTALL ADA PAVEMENT MARKING AND SYMBOL FOR HANDICAP PARKING. SEE DETAIL F7/C-501.
5. INSTALL SIGN TYPE "A". SEE DETAIL THIS SHEET.
6. INSTALL SIGN TYPE "B". SEE DETAIL THIS SHEET.
7. REINSTALL CHAIN LINK FENCE.
8. INSTALL SIGN TYPE "C". SEE DETAIL THIS SHEET.
9. INSTALL SIGN TYPE "D". SEE DETAIL THIS SHEET.
10. INSTALL 36"H WHITE TRAFFIC RIGHT DIRECTIONAL ARROW.
11. INSTALL 36"H WHITE TRAFFIC THRU ARROW.
12. INSTALL 12"W SOLID WHITE STOP BAR, 10' LONG.
13. REINSTALL SIGN TYPE "E". SEE DETAIL THIS SHEET.
14. REINSTALL CHAIN LINK FENCE. SEE DETAIL A1/C-502.
15. REINSTALL CHAIN LINK DOUBLE GATE.

LEGEND

- EXISTING INDEX CONTOUR
- EXISTING INTERMEDIATE CONTOUR
- EXISTING DRAINAGE ROW EASEMENT
- SW EXISTING SIDEWALK
- TC EXISTING TOP OF CURB ELEVATION
- FL EXISTING FLOWLINE ELEVATION
- CLD EXISTING CENTERLINE OF DOOR
- TCO EXISTING TOP OF CONCRETE
- SQ GRT EXISTING SQUARE GRATE
- CLF EXISTING CHAIN LINK FENCE
- STW EXISTING STONE WALL
- CRL EXISTING CRAWL SPACE
- PB EXISTING PARKING BUMPER
- RD EXISTING ROOF DRAIN
- MSN EXISTING METAL SIGN
- SP EXISTING STEEL POLE
- CW EXISTING CONCRETE WALL
- MC EXISTING METAL COLUMN
- CO EXISTING CLEAN OUT
- MHR EXISTING METAL HANDRAIL
- DGA EXISTING DOUBLE GATE
- PROPOSED 3" ASPHALT
- PROPOSED 4" PCC
- PROPOSED 6" PCC
- REINSTALLED FENCE

SIGN LEGEND



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CONSULTANTS

SEAL
BRIGITTE FULLER NEW MEXICO 15102 REGISTERED PROFESSIONAL ENGINEER

PROJECT NAME
COLLET PARK ELEMENTARY SCHOOL PARKING LOT IMPROVEMENTS

MARK	DESCRIPTION	DATE

PROJECT NO:	1060003200
DESIGNED BY:	RJF
DRAWN BY:	JEM
CHECKED BY:	BMF
DATE:	SEPTEMBER 2010

SHEET TITLE
TRAFFIC CIRCULATION LAYOUT

SHEET NO:
C-102

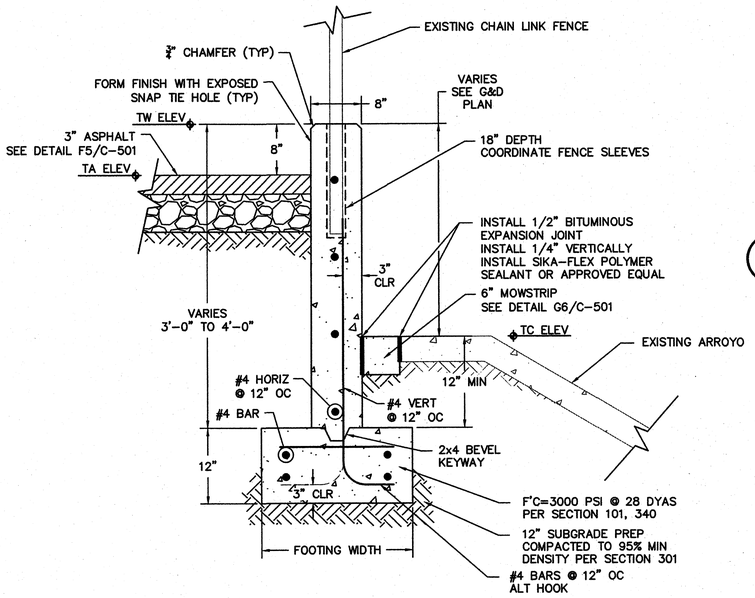
M:\JDS\10-600-032-00\CADD\SHEETS\05 TCL\06032_TCL.DWG 9/17/2010 9:29 AM

RETAINING WALL GENERAL NOTES:

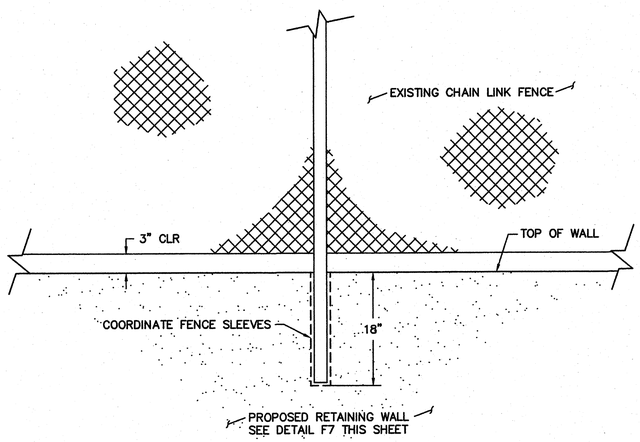
1 RETAINING WALLS SHALL BE F'C=3000 PSI @ 28 DAYS PER SECTION 101, 340.

2 1/2" EXPANSION JOINTS TO BE RECESSED 1/4" VERTICALLY. INSTALL POLYMER SEALANT OR APPROVED EQUAL.

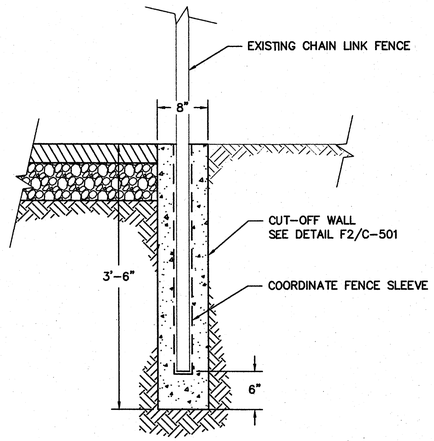
RETAINING WALL DETAIL		
WALL TYPE	HEIGHT (FT)	FOOTING WIDTH (FT)
B	1'-0" TO 1'-6"	1'-0"
B	1'-7" TO 2'-11"	2'-0"
A	3'-0" TO 4'-0"	2'-6"



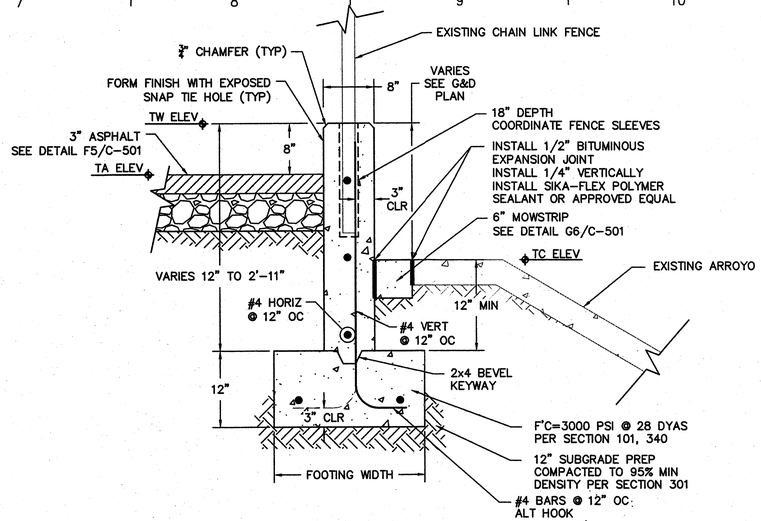
D1 RETAINING WALL TYPE "A" DETAIL
SCALE: NTS



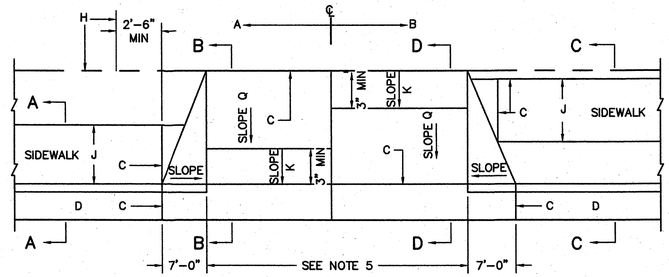
A1 EXISTING FENCE W/ RETAINING WALL DETAIL
SCALE: NTS



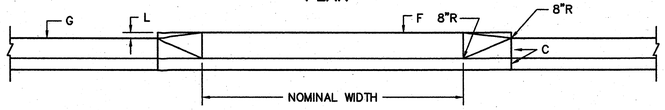
F5 CUT-OFF WALL/FENCE DETAIL
SCALE: NTS



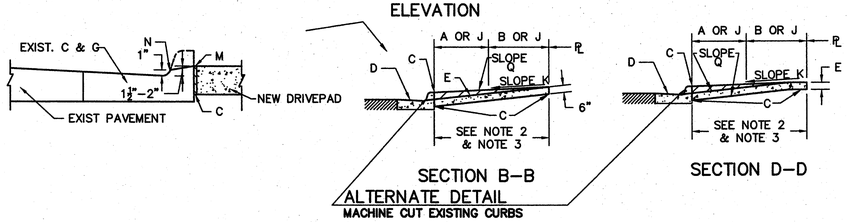
F7 RETAINING WALL TYPE "B" DETAIL
SCALE: NTS



PLAN

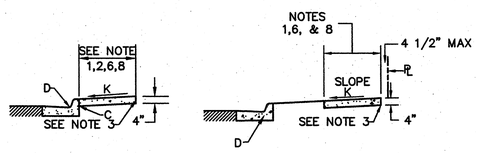


ELEVATION



SECTION B-B
ALTERNATE DETAIL
MACHINE CUT EXISTING CURBS

SECTION D-D



SECTION A-A

SECTION C-C

A5 DRIVE PAD DETAIL
SCALE: NTS

GENERAL NOTES:

1. DEVIATIONS FROM THESE STDS. SHALL BE SUBMITTED TO THE ENGINEER AND/OR TRAFFIC ENGR. FOR APPROVAL PRIOR TO CONSTRUCTION.
2. REQUEST FOR SIDEWALK VARIANCES SHALL BE SUBMITTED TO THE DEVELOPMENT REVIEW BOARD.
3. USE 1/2" EXP JOINT WHERE SIDEWALK OR DRIVEPAD ABUTS BLDGS, FENCES, WALLS OR OTHER IMMOVABLE OBJECTS.
4. ALL DRIVEPADS SHALL BE A MIN OF 6.5' IN DEPTH OR SHALL BE CONSTRUCTED FROM BACK OF CURB TO P/L, WHICHEVER IS GREATER.
5. DRIVEPADS WIDER THAN 18' (NOMINAL) SHALL HAVE 1/2" EXP JOINT AT MIDPOINT. DRIVEPADS WIDER THAN 36' SHALL HAVE 1/2" EXP JOINT 18' MAX BETWEEN JOINT EQUALLY SPACED.
6. CURB TYPE SIDEWALK SHALL BE USED ONLY WHEN VARIANCE IS APPROVED.
7. FOR SIDEWALK WIDTH, SEE CHAP 23 OF THE DEVELOPMENT PROCESS MANUAL.
8. SUBGRADE UNDER SIDEWALK & DRIVEPAD SHALL BE COMPACTED AS PER SECTION 301
9. ADA-AMERICANS WITH DISABILITY ACT.

CONSTRUCTION NOTES:

A. CURB TYPE SIDEWALK.
B. OFFSET SIDEWALK.
C. 1/2" EXP JOINT ADJUST TO FIELD CONDITIONS ON REPLACEMENT WORK.
D. CURB & GUTTER.
E. SLOPE TO BE ADJUSTED TO PROVIDE A UNIFORM TRANSITION BETWEEN SIDEWALK & DRIVEPAD.
F. TOP OF DRIVEPAD.
G. TOP OF CURB.
H. PROPERTY LINE.
J. VARIABLE WIDTH.
K. SLOPE I(VERTICAL) TO 50(HORIZONTAL)
L. THE FINISH GRADE ELEVATION DIFFERENCE BETWEEN TOP OF DRIVEPAD AT PROPERTY LINE AND TOP OF CURB AS DETERMINED BY A SLOPE OF 1(VERTICAL) TO 50(HORIZONTAL) FROM TOP OF CURB TO TOP OF DRIVEPAD. AND ANY DEVIATION FROM THIS SLOPE MUST BE APPROVED BY THE CITY ENGINEER.
M. SAW CUT EXISTING CONCRETE FROM BACKSIDE OF CURB WITH SLOPE TOWARD FLOWLINE.
N. EXPOSED CUT EDGES TO BE GROUND SMOOTH/ ROUNDED TO REMOVE SHARP EDGE.
P. OUTSIDE EDGE OF SIDEWALK.
Q. SLOPE REQUIRED TO MEET GIVEN OR SET BOUNDARY ELEVATIONS(PROPERTY LINE OR DOC, ETC.)

RECEIVED
SEP 17 2010
HYDROLOGY SECTION

WILSON & COMPANY
4900 LANG AVENUE N.E.
ALBUQUERQUE, NEW MEXICO 87109
PH (505) 348-4000
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CONSULTANTS

SEAL
BRIDGETTE FULLER 15102 REGISTERED PROFESSIONAL ENGINEER 9/17/10

PROJECT NAME
COLLET PARK ELEMENTARY SCHOOL PARKING LOT IMPROVEMENTS

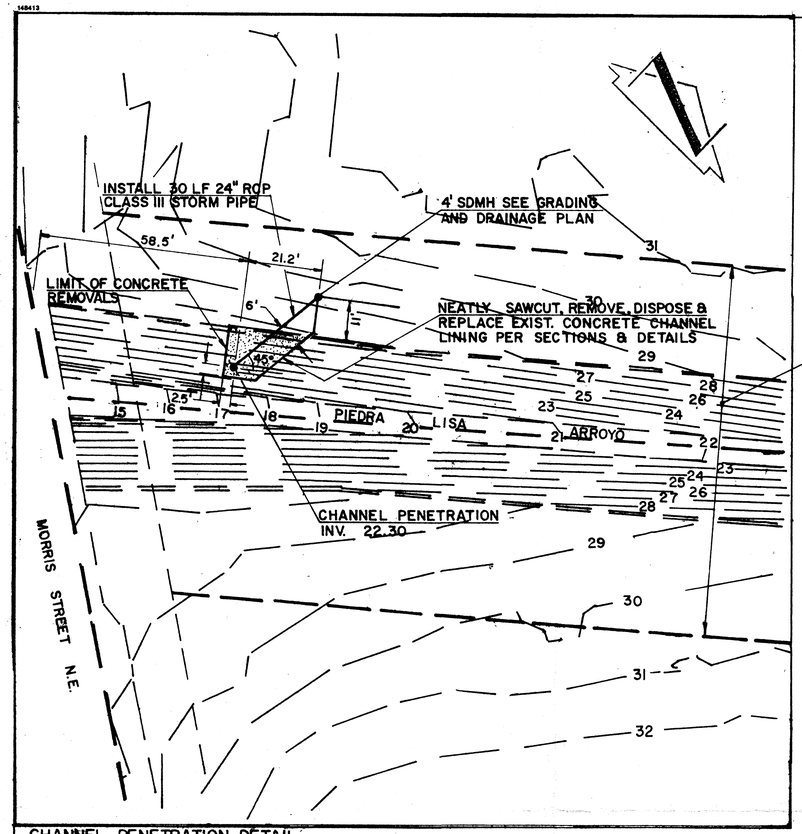
MARK	DESCRIPTION	DATE

PROJECT NO:	1060003200
DESIGNED BY:	RJF
DRAWN BY:	JEM
CHECKED BY:	BMF
DATE:	SEPTEMBER 2010

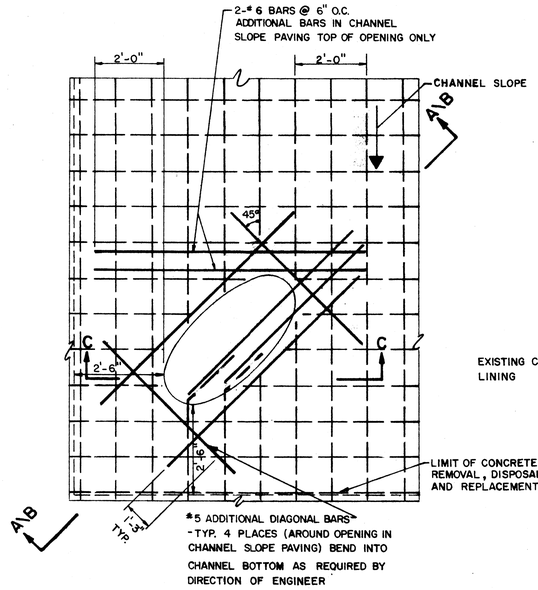
SHEET TITLE
DETAILS

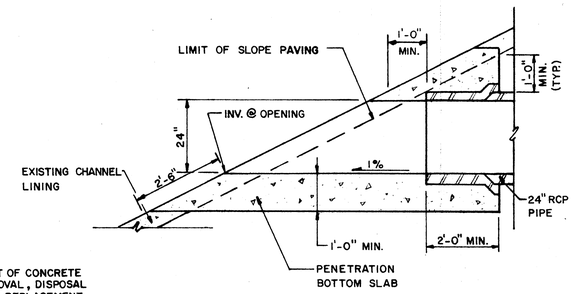
SHEET NO:
C-502

M:\IDS\10-600-032-00\CADD\SHEETS\04 DTLS\0603Z_DTL02.DWG 9/17/2010 9:23 AM



CHANNEL PENETRATION DETAIL
SCALE: 1" = 20'

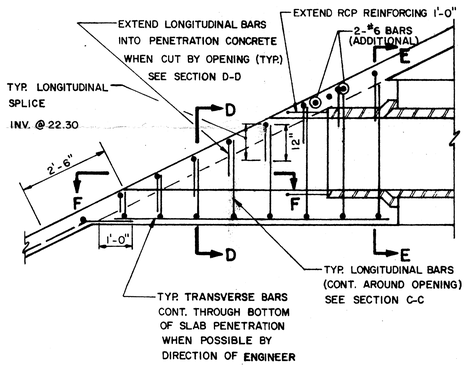




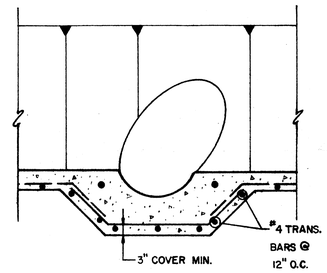
NOTE: SEE SECTION B-B FOR REINFORCING.

SECTION A-A
SCALE: 1" = 2'-0"

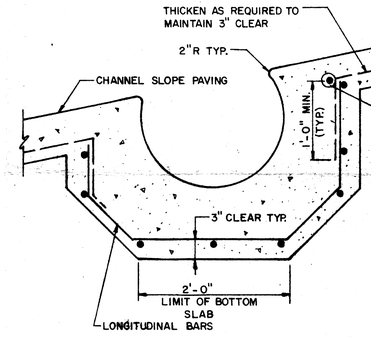
CHANNEL PENETRATION DETAIL
SCALE: 1" = 2'-0"



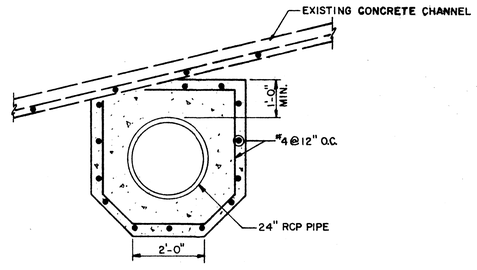
SECTION B-B
SCALE: 1" = 2'-0"



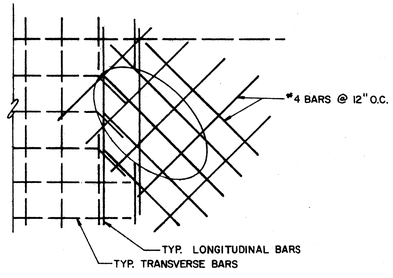
SECTION C-C
SCALE: 1" = 2'-0"



SECTION D-D
SCALE: 1" = 1'-0"



SECTION E-E
SCALE: 1" = 2'-0"



SECTION F-F
SCALE: 1" = 2'-0"

NOTES:
1 - ALL PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III.
2 - ALL CONCRETE SHALL BE 4000 PSI.

RECEIVED
JUL 18 1994

940221

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
INSPECTORS FIELD TOLERANCE
VERIFICATION BY
CORRECTED BY
DATE

BENCH MARKS
A STANDARD ACS BRASS TABLET STAMPED "A.C.S. 8-H21 "A", SET IN CONCRETE POST FLUSH WITH THE CURB STATION IS LOCATED AT THE INTERSECTION OF MENAUL BLVD. N.E. AND MORRIS AVENUE N.E. AND IS 46.5' SOUTH OF THE CENTERLINE OF MENAUL BLVD. AND 22.7' WEST OF THE CENTERLINE OF MORRIS AVENUE ELEV. = 5531.17 FEET (MSL D).

MICRO-FILM INFORMATION
RECORDED BY
DATE
NO.

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE
1	JMA	1/94

ENGINEER'S SEAL
JAMES M. MONTOYA NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER
07-15-94

NO.	DATE	REVISIONS	BY
		DESIGN	
		DESIGNED BY MFD	DATE 6/94
		DRAWN BY + MISC.	DATE 6/94
		CHECKED BY JGM	DATE 6/94

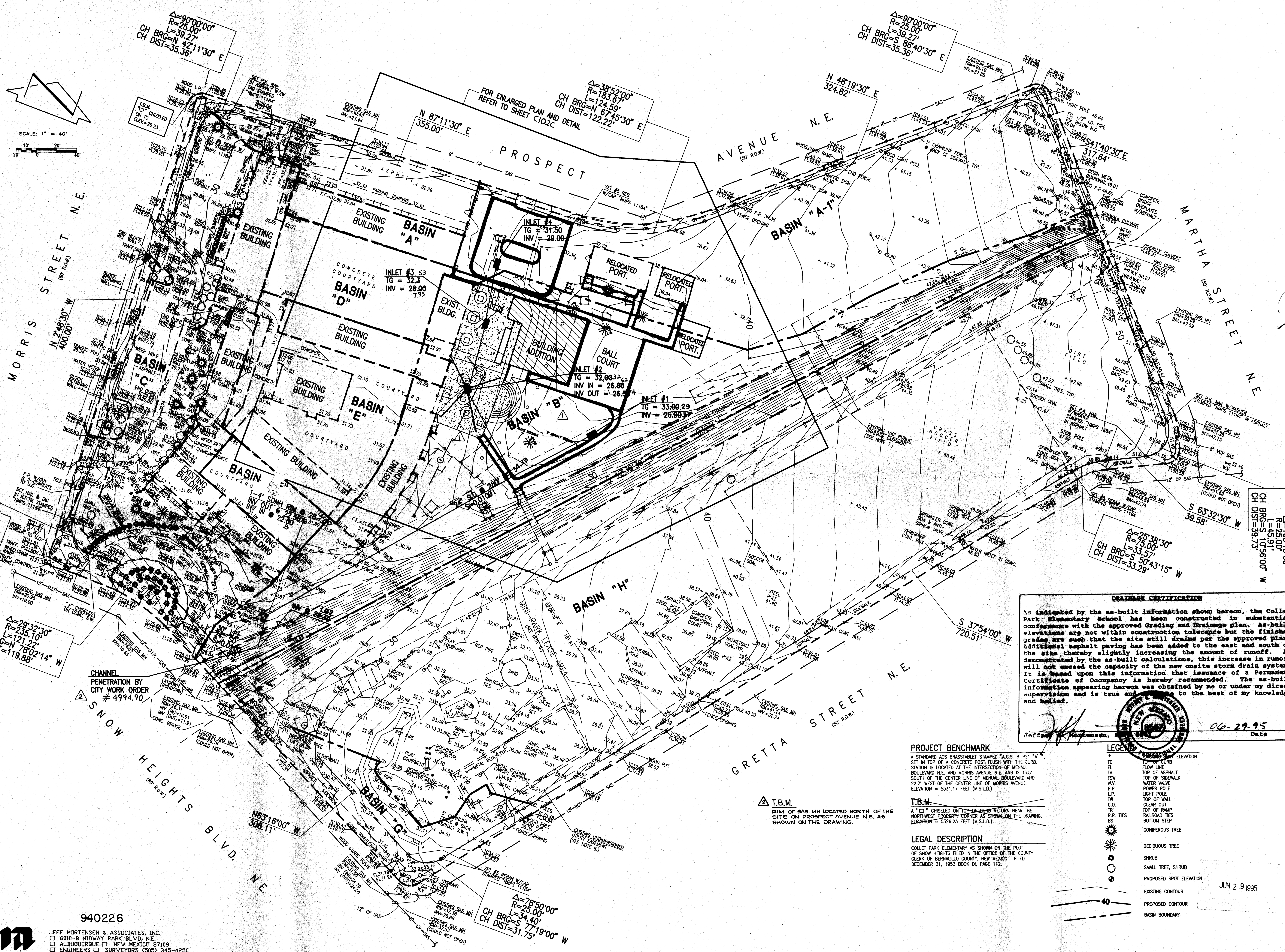
REMARKS

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING GROUP

TITLE: COLLET PARK ELEMENTARY SCHOOL
PIEDRA LISA CHANNEL PENETRATION
SECTIONS & DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN			WATER		
TRANSPORTATION			WASTE WATER		
HYDROLOGY					

PROJECT NO.
MAP NO. H-21
SHEET 2 OF 2



△2 T.B.M.
RIM OF SAS MH LOCATED NORTH OF THE SITE ON PROSPECT AVENUE N.E. AS SHOWN ON THE DRAWING.

PROJECT BENCHMARK

A STANDARD ACS BRASSTABLET STAMPED "A.C.S. 8-H21 "A" ", SET IN TOP OF A CONCRETE POST FLUSH WITH THE CURB. STATION IS LOCATED AT THE INTERSECTION OF MENAUL BOULEVARD N.E. AND MORRIS AVENUE N.E. AND IS 46.5' SOUTH OF THE CENTER LINE OF MENUAL BOULEVARD AND 22.7' WEST OF THE CENTER LINE OF MORRIS AVENUE. ELEVATION = 5531.17 FEET (M.S.L.D.)

~~T.B.M.~~

~~A "□" CHISELED ON TOP OF CURB RETURN NEAR THE NORTHWEST PROPERTY CORNER AS SHOWN ON THE DRAWING. ELEVATION = 5526.23 FEET (M.S.L.D.)~~

LEGAL DESCRIPTION

COLLET PARK ELEMENTARY AS SHOWN ON THE PLOT OF SNOW HEIGHTS FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO. FILED DECEMBER 31, 1953 BOOK DI, PAGE 112.

LEGEND

+	EXISTING SPOT ELEVATION
TC	TOP OF CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TSW	TOP OF SIDEWALK
W.V.	WATER VALVE
P.P.	POWER POLE
L.P.	LIGHT POLE
TW	TOP OF WALL
C.O.	CLEAR OUT
TR	TOP OF RAMP
R.R. TIES	RAILROAD TIES
BS	BOTTOM STEP
	CONIFEROUS TREE
	DECIDUOUS TREE
	SHRUB
	SMALL TREE, SHRUB
	PROPOSED SPOT ELEVATION
	EXISTING CONTOUR
40	PROPOSED CONTOUR
	BASIN BOUNDARY

DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, the Collet Park Elementary School has been constructed in substantial conformance with the approved Grading and Drainage plan. As-built elevations are not within construction tolerance but the finished grades are such that the site still drains per the approved plan. Additional asphalt paving has been added to the east and south of the site thereby slightly increasing the amount of runoff. As demonstrated by the as-built calculations, this increase in runoff will not exceed the capacity of the new onsite storm drain system. It is based upon this information that issuance of a Permanent Certificate of Occupancy is hereby recommended. The as-built information appearing hereon was obtained by me or under my direct supervision and is true and accurate to the best of my knowledge and belief.

Jeffrey G. Mortensen, NMPE 8547 — 06-29-95 Date

JUN 29 1995

940226

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
ENGINEERS SURVEYORS (505) 345-4250

HOLMES SABATINI ASSOCIATES
ARCHITECTS

202 Central Avenue, S.E.
West Courtyard
Albuquerque, NM 87102
(505) 247-8705
FAX (505) 247-4506
A Professional Corporation

Architect

Engineer

JEFFREY G. MORTENSEN — NEW MEXICO — 8547 — REGISTERED PROFESSIONAL ENGINEER — 06-29-94

Project

ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements

2100 Morris NE
Albuquerque, New Mexico

Sheet Title:
PRIVATE STORM DRAIN SITE PLAN

Revisions:
△1 ADD WALKWAY & AMPHITHEATER
△2 AS-BUILT AND CERTIFY

Date: 7/94

HSA Project: 9317.02

CADD Files: 940221A.DWG

Sheet Number:
C101C

SCALE: 1" = 20'

5' 10'
10' 0 20'

AS-BUILT LEGEND

- AS-BUILT ASPHALT PAVING
- +TA35.91 AS-BUILT ELEVATION
- DIRECTION OF FLOW
- ~~26.00~~ 7.93 AS-BUILT ELEVATION

PROSPECT AVENUE N.E. (50' R.O.W.)

EXISTING SAS MH RIM=30.49 INV.=23.44

EXISTING PORTABLE BLDG ~~TO BE~~ RELOCATED BY OWNER

TBM EXISTING SAS MH RIM=36.03 INV.=29.63

5/8" ø REBAR W/ CAP STAMPED "N.M.P.S. 11181"

5' CHAINLINK FENCE @ BACK SIDEWALK, TYP.

FENCE OPENING

WOOD L.P.

STANDARD CURB & GUTTER

CONCRETE

R.R. TIES

TRAFFIC SIGN

DRIVEWAY

ASPHALT

DIRT

BASIN "A"

BASIN "A-1"

BASIN "B"

BASIN "D"

BASIN "E"

BASIN "H"

LOWERED PORTABLE BUILDING

RELOCATED PORTABLE BUILDING

PORTABLE BLDG. CONCRETE PIERS

FUTURE PORTABLE

RELOCATED PORTABLE BUILDING TA 36.25

METAL STEPS

NO ASPHALT

CONC. SLAB

CONIFEROUS TREE

ROW PARKING BUMPERS

BUILD. O.H.

METAL COVER CRAWL SPACE

MATCH EXISTING GRADE

EXISTING BUILDING

EXIST. BUILDING

~~CONSTRUCT~~ SINGLE 'D' STORM INLET #4
GRATE ● 31.56.75
INV. ● ~~29.00~~ 8.92

EXIST. PORT. BLDG ~~TO BE~~ RELOCATED BY OWNER

MULTI-PURPOSE BUILDING FF=5535.40 .72

60 LF± 18" S.D. ● S=0.0170

~~CONSTRUCT~~ SINGLE 'D' STORM INLET #3
GRATE ● ~~32.30.53~~
INV. ● ~~28.00~~ 7.93

CONCRETE COURTYARD

APPROX. LOCATION OF EXISTING COURTYARD STORM DRAIN LINE

CONNECT NEW 6" S.D. TO EXISTING S.D. (VERIFY LOCATION, DEPTH, AND SIZE PRIOR TO CONSTRUCTING ALL ONSITE PRIVATE STORM DRAIN IMPROVEMENTS.)

EXTEND EXISTING S.D. & CONNECT TO NEW STORM INLET

COVERED CONCRETE

ROOF DRAINAGE

GRATE INLET

REMOVE AND DISPOSE OF EXISTING STORM INLET

EDGE OF ASPHALT

6' ASPHALT WALKWAY

5' SLOPE SIDEWALK

WOOD BENCH

2-STEEL POSTS

12" ø CMP

~~CONSTRUCT~~ SINGLE 'D' STORM INLET #2
GRATE ● ~~32.00~~.52
INV. IN ● ~~26.00~~.62
INV. OUT ● 26.584

PLAY EQUIPMENT

ABANDON IN PLACE

2" ø COTTONWOOD

WOOD/STEEL FOOT BRIDGE

STEEL GATE

30.27 STORM INLET (FULL OF DIRT)

FOR CONTINUATION SEE SHEET C101C

MATCH EXISTING GRADE

RCP PIPE

LADDER BARS

SAND

CONCRETE LINED CHANNEL

5' CHAINLINK FENCE

EDGE OF GRASS

SMALL TREE 40.37

~~CONSTRUCT~~ 1-SINGLE 'D' STORM INLET #1
GRATE ● ~~33.00~~.29
INV. ● ~~26.00~~ .57

~~CONSTRUCT~~ 1-4' DIA. SDMH #2
RIM ● ~~34.05~~.79
INV. IN ~~25.50~~(NW) 1
INV. IN ~~26.00~~(NE) 5.59
INV. OUT ~~25.20~~ .51

DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, the Collet Park Elementary School has been constructed in substantial conformance with the approved Grading and Drainage plan. As-built elevations are not within construction tolerance but the finished grades are such that the site still drains per the approved plan. Additional asphalt paving has been added to the east and south of the site thereby slightly increasing the amount of runoff. As demonstrated by the as-built calculations, this increase in runoff will not exceed the capacity of the new onsite storm drain system. It is based upon this information that issuance of a Permanent Certificate of Occupancy is hereby recommended. The as-built information appearing hereon was obtained by me or under my direct supervision and is true and [illegible] to the best of my knowledge and belief.

Jeffrey G. Mortensen, [illegible]

06-29-95
Date

JEFFREY G. MORTENSEN NEW MEXICO 12547 REGISTERED PROFESSIONAL ENGINEER

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990, for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer in writing so that the conflict can be resolved with a minimum amount of delay.
3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.
7. All storm drain shall be reinforced concrete pipe (RCP) class III or approved substitute.
8. Rough grading and Portable Classroom relocations to be accomplished by separate contract.

Erosion Control Measures:

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.
2. The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.

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Engineer
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06-29-95

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Project
ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements
2100 Morris NE
Albuquerque, New Mexico

Sheet Title
GRADING AND DRAINAGE PLAN

Revisions
1 ADD WALKWAY & AMPHITHEATER
2 AS-BUILT AND CERTIFY

Date 7/94
HSA Project 9317.02
CADD Files 940221B.DWG

Sheet Number
C102C

JUN 29 1995

DRAINAGE PLAN

The following items concerning the Collet Park Elementary School Grading and Drainage Plan are contained hereon:

1. Vicinity Map
2. F.I.R.M.
3. Grading Plan
4. Calculations

As shown on the Vicinity Map, the site is located to the east of Morris Street N.E. and to the north of Snow Heights Boulevard N.E. The site is currently developed as an elementary school and comprises of permanent and portable buildings, paved parking areas, paved and unpaved enclosed patios, and two large play areas.

Review of Panel 25 of 50 of the National Flood Insurance Program, Flood Insurance Rate Maps for the City of Albuquerque, Bernalillo County, New Mexico, dated October 14, 1983, the Piedra Lisa Arroyo runs through the site and is a designated 100-year Flood Hazard Zone. However, this flood hazard zone is confined to the arroyo.

The project consists of the addition of a parking lot, the moving of some portables, regrading part of the site, and the construction of a multi-purpose building. In addition to these improvements, a storm drain line with associated inlets will be constructed so as to alleviate the problems of standing water in some areas. This storm drain will discharge into the Piedra Lisa Arroyo. The storm drain will link various enclosed basins (i.e., Basins E, D) so that they may discharge their runoff to the Arroyo.

The Calculations which appear hereon analyzes the developed conditions for the 100-year, 6-hour rainfall event. The existing condition calculations are included in the Master Drainage Plan dated 7/15/1994. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, an increase in runoff is expected. The DPM Revision has been used for the developed condition only as part of the evaluation of storm drain capacities. Storm drain capacities have been evaluated based upon the Manning's Equation using Haestad's Flowmaster program. As shown by these calculations, the proposed private storm drain system will have adequate capacity to handle the runoff from this project as well as future site improvements.

⚠1 CALCULATIONS

Site Characteristics

1. Precipitation Zone = 4
2. $P_{6,100} = P_{360} =$ 2.90 in.
3. Total Area (A_T) = 5.24 acres
4. Developed Land Treatment

Basin "A"	(18,000/0.41)	100
Treatment	Area (sf/ac)	%
D	18,000/0.41	100
Basin "A-1"	(65,930/1.52)	100
B	1,050/0.02	1.6
C	54,610/1.25	82.8
D	10,270/0.25	15.6
Basin "B"	(102,370/2.35)	100
B	8,73~~14,555~~/0.~~34~~20	~~14.2~~ 8.5
C	⚠2 6,845~~9,765~~/1.~~360~~	~~58.25~~ 58.5
D	36,79~~28,450~~/0.~~65~~8	~~27.8~~ 36.0
Basin "D"	(10,470/0.24)	100
B	800/0.02	7.6
D	9,670/0.22	92.4
Basin "E"	(26,850/0.62)	100
B	300/0.01	1.1
C	6,750/0.15	25.1
D	19,800/0.46	73.8
Basin "F"	(4,220/0.10)	100
B	400/0.01	9.5
D	3,820/0.09	90.5

Developed Condition

Basin "A"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = (2.64)(0.41)/(0.41) = 2.64$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.64/12)(0.41) = 0.0902$ ac.ft.; 3,030 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (5.25)(0.41) = 2.2$ cfs

Basin "A-1"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.02)+(1.46)(1.25)+(2.64)(0.25)]/(1.52) = 1.65$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.65/12)(1.52) = 0.2089$ ac.ft.; 9,100 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.02)+(3.73)(1.25)+(5.25)(0.25) = 6.0$ cfs

Basin "B"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

⚠2 $E_W = [(1.08)(0.\overset{20}{\cancel{34}})+(1.46)(1.36)+(2.64)(0.\overset{8}{\cancel{25}})]/(2.35) = 1.\overset{85}{\cancel{73}}$ in.

$V_{100} = (E_W/12)A_T$

⚠2 $V_{100} = (1.\overset{85}{\cancel{73}}/12)(2.35) = 0.3\overset{632}{\cancel{388}}$ ac.ft.; $1\overset{5,82}{\cancel{4,760}}$ cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

⚠2 $Q_p = Q_{100} = (2.92)(0.\overset{20}{\cancel{34}})+(3.73)(1.36)+(5.25)(0.\overset{8}{\cancel{25}}) = 9.\overset{9}{\cancel{5}}$ cfs

Basin "D"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.02)+(2.64)(0.22)]/(0.24) = 2.51$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.51/12)(0.24) = 0.0502$ ac.ft.; 2,190 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.02)+(5.25)(0.22) = 1.2$ cfs

Basin "E"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.01)+(1.46)(0.15)+(2.64)(0.46)]/(0.62) = 2.33$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.33/12)(0.62) = 0.1203$ ac.ft.; 5,240 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.01)+(3.73)(0.15)+(5.25)(0.46) = 3.0$ cfs

Basin "F"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.01)+(2.64)(0.09)]/(0.10) = 2.48$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.48/12)(0.1) = 0.0207$ ac.ft.; 900 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.01)+(5.25)(0.09) = 0.5$ cfs

Pipe Hydraulics (Using Haestad Method's "Flowmaster" program)

Inlet #4 to Inlet #3 (18" SD)
(Assume all of Basin A-1 drains to Inlet #4)

Basin A-1 $Q_{100} = 6.0$ cfs
n = 0.013
⚠2 S = 0.017~~0G5~~
Pipe = 18"
$Q_{cap} = 14.70$ cfs $> Q_{100}$

Inlet #3 to Inlet #2
(Assume all of Basin B and Basin A-1 drain into Inlet)

$Q_{100} = 9.\overset{9}{\cancel{5}}$ cfs + 6.0 cfs = $15.\overset{9}{\cancel{5}}$ cfs

n = 0.013
S = 0.020~~00~~18
Pipe = 18"
$Q_{cap} = 15.9$ cfs $> Q_{100}$

Inlet #2 to SDMH #2
(Assume Basin A-1 and Basin B drain to SDMH #2)

$Q_{100} = 15.\overset{5}{\cancel{9}}$ + 1.2 = $16.\overset{7}{\cancel{9}}$ cfs

n = 0.013
S = 0.010~~0~~8
Pipe = 24"
$Q_{cap} = 24.3$ cfs $> Q_{100}$

Inlet #1 to SDMH #2
(Assume Basin B drains to Inlet #1)

$Q_{100} = 9.\overset{5}{\cancel{9}}$ cfs

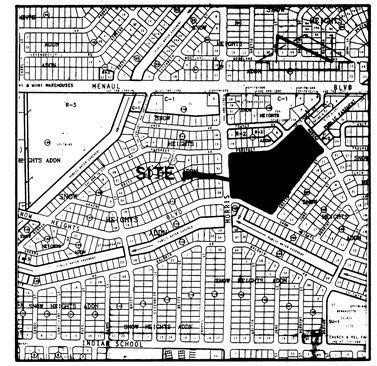
n = 0.013
S = 0.0~~1~~00
Pipe = 18"
$Q_{cap} = 11.3$ cfs $> Q_{100}$

SDMH #2 to SDMH #1

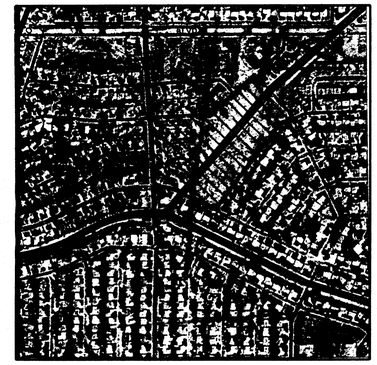
$Q_{100} = 16.\overset{7}{\cancel{9}}$ cfs, however design for future connection of Basins E and F $Q_{Design} = 20.\overset{2}{\cancel{9}}$ cfs

$Q_{Design} = 16.\overset{7}{\cancel{9}} + 3.0 + 0.5 = 20.\overset{2}{\cancel{9}}$ cfs

n = 0.013
S = 0.010~~0~~1
Pipe = 24"
$Q_{cap} = 24.3$ cfs $> Q_{Design}$



VICINITY MAP H21
1" = 750' (APPROX.)



F.I.R.M. MAP 25 OF 50
1" = 500' (APPROX.)

⚠2

DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, the Collet Park Elementary School has been constructed in substantial conformance with the approved Grading and Drainage plan. As-built elevations are not within construction tolerance but the finished grades are such that the site still drains per the approved plan. Additional asphalt paving has been added to the east and south of the site thereby slightly increasing the amount of runoff. As demonstrated by the as-built calculations, this increase in runoff will not exceed the capacity of the new onsite storm drain system. It is based upon this information that issuance of a Permanent Certificate of Occupancy is hereby recommended. The as-built information appearing hereon was obtained by me or under my direct supervision and is true and correct to the best of my knowledge and belief.

Jeffrey G. Mortensen, NMPE 8547 — 06-29-95
Date

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

JUN 29 1995

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Engineer

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8/1/94

Project

ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements
2100 Morris NE
Albuquerque, New Mexico

Sheet Title:
DRAINAGE PLAN AND CALCULATIONS

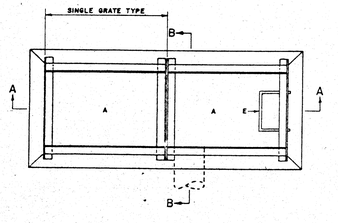
Revisions:
⚠1 CALCULATION REVISION
⚠2 AS-BUILT AND CERTIFY

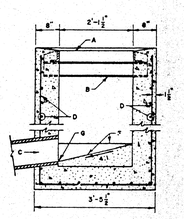
Date: 7/94

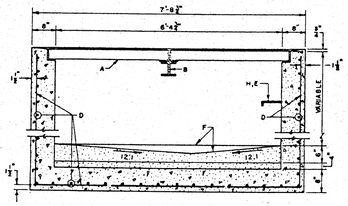
HSA Project: 9317.02

CADD Files: 940221C.DWG

Sheet Number:
C201C







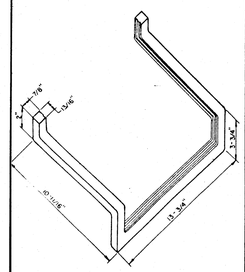
GENERAL NOTES:

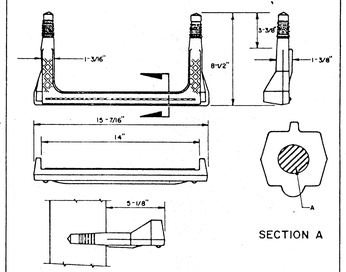
1. FOR SINGLE GRATE TYPE STORM INLET, OULETE CENTER SUPPORT AND MOVE ONE END WALL TO FORM NEW SINGLE GRATE INLET.
2. STORM INLET GUTTER TRANSITION WILL BE SHOWN ON THE CONSTRUCTION PLANS.
3. OUTLET PIPE SIZE, PER DESIGN REQUIREMENT.
4. FOR FRAME & GRATING, SEE DWG 2216, 2220 & 2221.
5. FOR CENTER SUPPORT ASSEMBLY, SEE DWG 2215.

CONSTRUCTION NOTES:

A. FRAME & GRATE
B. CENTER SUPPORT ASSEMBLY.
C. CUT ONE HORIZONTAL AND ONE VERTICAL BAR MAX. AT PIPE OPENING.
D. NO. 4 BARS @ 6" O.C. EACH WAY.
E. USE STANDARD STEPS, SEE DWG 2229.
F. CONC. FILL, SEE NOTE C DWG 2201.
G. INVERT PER DESIGN.
H. INSTALL STEPS ON DOWNSTREAM FACE

REVISIONS	CITY OF ALBUQUERQUE
12-21-92	DRAINAGE STORM INLET DOUBLE "D" DWG. 2206 AUG 1986





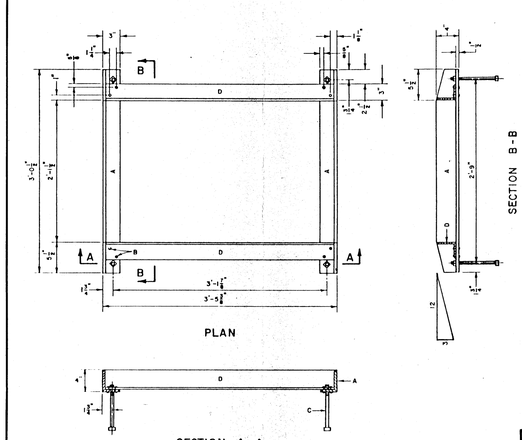
GENERAL NOTES:

1. ALUMINUM STEP, ALCOA MO 12453A OR APPROVED EQUAL.
2. ALTERNATE STEP SHALL BE POLYPROPYLENE - MOLDED OVER 1/2" STEEL REINFORCEMENT MODEL NO. PS-2-PFS, M.A. INDUSTRIES INC., OR APPROVED EQUAL.
3. STORM INLETS: INLETS GREATER THAN 4' DEEP SHALL HAVE STEPS INSTALLED IN DOWNSTREAM FACE OF INLET WALLS. STEPS SHALL PROTRUDE 7" FROM THE WALL AND BE CENTERED 12" FROM FACE OF CURB. STEPS SHALL BE 12" APART, WITH THE TOP STEP +/- 18" FROM TOP OF GRATE AND THE BOTTOM STEP NO MORE THAN 16" ABOVE THE CONCRETE FILL IN THE BOTTOM OF THE INLET.
4. DRAINAGE CHANNELS: CHANNELS SHALL HAVE STEPS FOR ACCESS AND RESCUE INSTALLED PER DETAILS ON DWG. 2261. STEPS SHALL BE INSTALLED ON BOTH SIDES OF THE CHANNEL AND SHALL BE LOCATED IMMEDIATELY BEFORE THE INLET AND AFTER OUTLET TRANSITIONS FOR CROSSING STRUCTURES OR AS NOTED ON THE PLANS.

CONSTRUCTION NOTES:

A. 1/2" GRADE 60 STEEL REINFORCEMENT.

REVISIONS	CITY OF ALBUQUERQUE
8/20/92	DRAINAGE STEP DETAILS DWG. 2229 AUGUST 1986



GENERAL NOTES:

1. ALL EXPOSED METAL PARTS SHALL BE PAINTED PRIOR TO ASSEMBLY. WELDING, MACHINING AND DRILLING SHALL BE DONE PRIOR TO PAINTING. ALL DIMENSIONS ARE FINISH DIMENSIONS.
2. ALL PARTS SHALL BE OF STRUCTURAL STEEL, GRADE 36.
3. FOR CLEANING AND PAINTING OF FRAME SEE DWG. 2215, GENERAL NOTE NO. 4.
4. FRAME MAY BE WELDED OR RIVETED

CONSTRUCTION NOTES:

A. 4" x 3" x 1/2" x 5'-1/2" ∠
B. 2 - 3/8" RIVETS AT EACH CORNER, SEE GENERAL NOTE NO. 5.
C. 4'-1/2" x 8" BOLTS WITH SQUARE HEAD & NUT AT EACH CORNER FOR ANCHORING FRAME INTO CONCRETE WALL.
D. 3'-1/2" x 3" x 3/8" x 3'-4-3/8" ∠

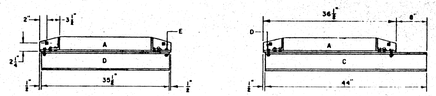
REVISIONS	CITY OF ALBUQUERQUE
	DRAINAGE STORM INLET FRAME DWG. 2216 AUG 1986

GENERAL NOTES:

1. ALL BOLTS USED IN CENTER SUPPORT ASSEMBLY SHALL BE 3/4".
2. FRAME MAY BE RIVETED OR WELDED.
3. BOLTS (NOT RIVETS OR WELDS) SHALL BE USED TO JOIN TWO OR MORE FRAMES TOGETHER AND TO THE W BEAM.
4. AFTER CLEANING SURFACE OF SCALE, RUST, ETC., GRATING, FRAME AND CENTER SUPPORT SHALL BE PAINTED WITH ONE SHOP COAT RED OXIDE, TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69).
5. FOR SINGLE TYPE CATCH BASIN, MOVE ONE END WALL TO FORM NEW SINGLE GRATE CATCH BASIN.

CONSTRUCTION NOTES:

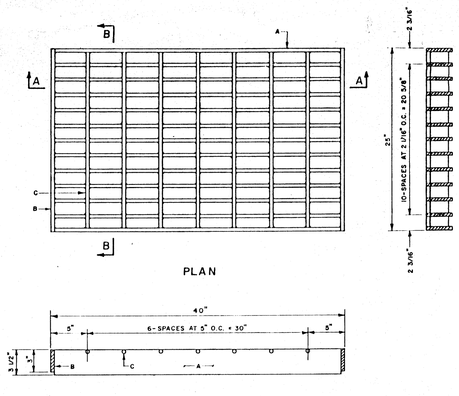
A. 4" X 3" X 1/2" X 36 1/2" ∠
B. 3 1/2" X 3" X 1/2" X 40 1/2" ∠
C. 5 X 5 WF 18.5 FLANGE BEAM, FOR CATCH BASIN TYPE DOUBLE "C"
D. 5 X 5 WF 18.5 FLANGE BEAM, FOR CATCH BASIN TYPE DOUBLE "D"
E. 3/4" BOLTS, WITH NUTS TO SECURE ANGLE TO BEAM.
F. FOR FRAME & GRATE SEE DWGS. 2216, 2220, 2221



REVISIONS	CITY OF ALBUQUERQUE
	DRAINAGE STORM INLET CENTER SUPPORT ASSEMBLY DWG. 2215 AUG 1986

GENERAL NOTES:

1. ALL BARS SHALL BE STRUCTURAL GRADE STEEL, GRADE A36.
2. THE GRATE SHALL BE WELDED WITH 1/8" FILLET WELD AROUND BOTH SIDES OF CROSS BARS, 1/4". FILLET WELD BOTH SIDES OF BEARING BARS TO END BARS.
3. AFTER CLEANING SURFACE OF SCALE, RUST, OILS, ETC., PAINT GRATE WITH ONE SHOP COAT RED OXIDE, TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69).
4. TOP OF CROSS BARS SHALL BE FLUSH WITH TOP OF GRATE.
5. GRIND WELDS FLUSH WITH BEARING BARS.
6. WHEN INSTALLED IN FRAME, PUSH TIGHT TO ONE SIDE, OTHER SIDE SHALL HAVE 1/2" MAX. OPENING. SPACERS WELDED TO FRAME MAY BE USED IF REQUIRED TO KEEP 1/2" SPACE OR LESS.



CONSTRUCTION NOTES:

A. BEARING BARS, (13) 1/2" X 3 1/2" X 39".
B. END BARS, (2) 1/2" X 3" X 25".
C. CROSS BARS, (3) 1/2" DIA. X 24.

REVISIONS	CITY OF ALBUQUERQUE
	DRAINAGE STORM INLET ALBUQUERQUE GRATE DWG. 2220 AUG 1986

DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, the Collet Park Elementary School has been constructed in substantial conformance with the approved Grading and Drainage plan. As-built elevations are not within construction tolerance but the finished grades are such that the site still drains per the approved plan. Additional asphalt paving has been added to the east and south of the site thereby slightly increasing the amount of runoff. As demonstrated by the as-built calculations, this increase in runoff will not exceed the capacity of the new onsite storm drain system. It is based upon this information that issuance of a Permanent Certificate of Occupancy is hereby recommended. The as-built information appearing hereon was obtained by me or under my direct supervision and is true and correct to the best of my knowledge and belief.

Jeffrey G. Mortensen — 06.29.95 Date

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JEFFREY G. MORTENSEN — NEW MEXICO — 8547 — REGISTERED PROFESSIONAL ENGINEER

Project

ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements
2100 Morris NE
Albuquerque, New Mexico

Sheet Title:
INLET SECTIONS AND DETAILS

Revisions:
2 RECORD DRAWING

Date: 7/3/94

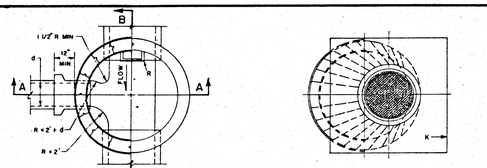
HSA Project: 9317.02

CADD Files: 940221

Sheet Number:
C202C

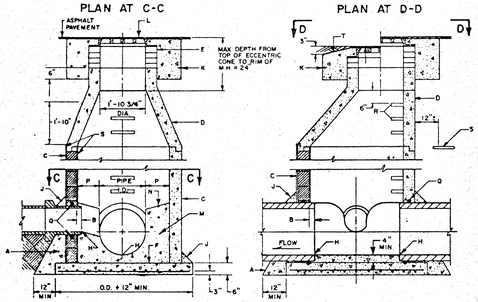
JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
ENGINEERS SURVEYORS (505) 345-4250

JUN 29 1995



PLAN AT C-C

PLAN AT D-D



CROSS SECTION A-A

CROSS SECTION B-B

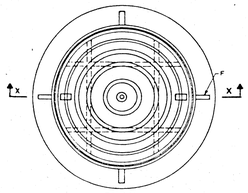
GENERAL NOTES

1. TYPE "E" MANHOLE NOT TO BE USED FOR DEPTHS LESS THAN 4' MEASURED FROM INVERT TO RIM.
2. MANHOLE GREATER THAN 18' IN DEPTH SHALL BE OF PRECAST CONCRETE SECTIONS ONLY.
3. DESIGN APPLIES TO 4' AND 6' I.D. MANHOLES.
4. USE NON-SHRINK GROUT FOR JOINTS, FILLETS AND PIPE PENETRATIONS.
5. COMPACT ALL BACKFILL AROUND MANHOLES TO 95% .
6. POSITION MANHOLE OPENING OVER THE UPSTREAM SIDE OF MAIN LINE.

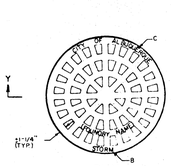
CONSTRUCTION NOTES

A. CONCRETE PIPE SUPPORTS SHALL EXTEND OUTSIDE OF MANHOLE TO SELL OF FIRST JOINT AND SHALL CRADLE PIPE TO SPRING LINE NOT APPLICABLE FLEXIBLE PIPE.
B. PIPE PENETRATION INTO MANHOLE SHALL BE FLUSH TO 1" MAX., MEASURED AT SPRINGLINE OF PIPE.
C. MANHOLE MAY BE CONSTRUCTED OF CONCRETE BLOCK, CR. MS BRICK, POURED CONCRETE OR PRECAST REINFORCED CONCRETE, IF BLOCK OR BRICK PLASTER INSIDE AND OUT WITH 1/2" MORTAR, SEE DWG. 2116 FOR DETAILS.
D. PRECAST REINFORCED CONCRETE ECCENTRIC CONE. THE CONTRACTOR SHALL PROVIDE SHOP DWGS. FOR APPROVAL.
E. USE MAX., 4 COURSES CR. MS BRICK OR UNPAVED STREET FOR FUTURE ADJ. OF FRAME TO PAVEMENT GRADE
F. PLASTER INSIDE WITH 1/2" MORTAR. BASE TO BE POURED IN PLACE USING NO. 4 BARS AT 6" O.C. EA. WAY FOR MANHOLE DEPTH OF 16' OR GREATER NO. 4 BARS AT 12" O.C. EA. WAY FOR MANHOLE LESS THAN 16' DEEP.
H. INVERT ELEVATION OF STUB OR LATERAL AS SHOWN ON PLANS.
J. 6" CHOUT FILLET ON UPPER HALF OF PIPE AND AROUND BASE.
K. USE A 5' X 5' CONCRETE PAD IN ALL AREAS.
L. MANHOLE FRAME AND COVER, SEE DWG. 2110.
M. CONCRETE, SEE SECTION 101.
N. SLOPE 1" PER FT. FROM PIPE CROWN.
P. SHELF TO BE 8" WIDE MIN.
Q. APPROVED WATERSTOP TO BE WITH TYPE OF PIPE.
R. STEPS TO BE INSTALLED AS PER SPEC. SECTION 920.
S. IMG (IN UNPAVED AREAS).
T. IN UNPAVED AREAS SET FRAME TO GRADE AND SLOPE TOP OF PAD.

REVISIONS	CITY OF ALBUQUERQUE
11-14-95	SEWER MANHOLE TYPE "E" DWG. 2102 AUG. 1986



PLAN



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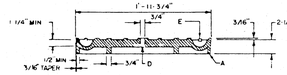
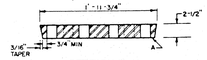
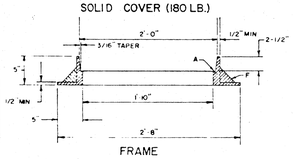


SOLID COVER (180 LB.)



SECTION Y-Y
VENTED COVER (135 LB.)



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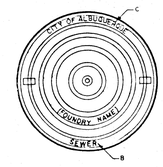
SECTION X-X



LETTERING PLAN

GENERAL NOTES:

1. STANDARD CAST IRON M.H. FRAME AND COVER. WEIGHTS: COVER= 180 LBS., FRAME = 145 LBS. TOTAL = 325 LBS. (TOLERANCE ± 5%)
2. REFERENCE SPEC. SECTION 150.

CONSTRUCTION NOTES:

A. MACHINED OR GROUND BEARING SURFACES.
B. "SEWER", "WATER", OR "STORM" CAST ON COVER TO IDENTIFY SANITARY SEWER, WATER OR STORM DRAINAGE SYSTEMS RESPECTIVELY.
C. LETTER SIZE TO BE 1" MIN. IN HEIGHT, TYPICAL.
D. VENT HOLE REQUIRED.
E. MONOLITHIC CAST IRON OR STEEL ROD INSERTS AT MANUFACTURER'S OPTION. IF INSERT IS PROVIDED IT MUST HAVE 3/16" MIN. COVER AND 3/4" END EMBEDMENT IN CASTING.
F. GUSSETS OPTIONAL IF REQUIRED BY MANUFACTURER.

REVISIONS	CITY OF ALBUQUERQUE
	SEWER MANHOLE FRAME AND COVER DWG. 2110 AUG. 1986

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE ☐ NEW MEXICO 87109
ENGINEERS ☐ SURVEYORS (505) 345-4250

DRAINAGE CERTIFICATION

As indicated by the as-built information shown hereon, the Collet Park Elementary School has been constructed in substantial conformance with the approved Grading and Drainage plan. As-built elevations are not within construction tolerance but the finished grades are such that the site still drains per the approved plan. Additional asphalt paving has been added to the east and south of the site thereby slightly increasing the amount of runoff. As demonstrated by the as-built calculations, this increase in runoff will not exceed the capacity of the new onsite storm drain system. It is based upon this information that issuance of a Permanent Certificate of Occupancy is hereby recommended. The as-built information appearing hereon was obtained by me or under my direct supervision and is true and correct to the best of my knowledge and belief.

Jeffrey G. Mortensen, NM 8547 — 06.29-95 Date

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER

JUN 29 1995

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07-[illegible]-94

Project

ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements
2100 Morris NE
Albuquerque, New Mexico

Sheet Title:
MANHOLE SECTIONS AND DETAILS

Revisions:
2 RECORD DRAWING

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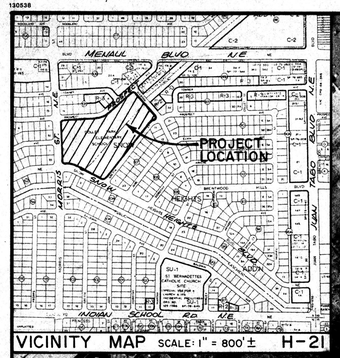
130538



VICINITY MAP SCALE: 1" = 800'± H-21

KEYED NOTES:

1. PLAY AREA SUSCEPTIBLE TO PERIODIC EROSION, PARTICULARLY DIRT AREA IN SOUTHWESTERN PORTION. REPORTED DAMAGE TO SOCCER FIELD CAUSED BY MAINTENANCE VEHICLES ENTERING VIA GATE ON MARTHA STREET N.E. AND CROSSING FIELD TO ACCESS SOUTHWESTERN PORTION OF PLAY AREA.
2. MUDDY AREA AGGRAVATED BY PEDESTRIAN TRAFFIC.
3. AREA USED BY STUDENTS AS WAITING AREA FOR SCHOOL BUSES. HEAVILY TRODDEN, MUDDY GROUND, WITH EVIDENCE OF SOIL EROSION ONTO SIDEWALK ON PROSPECT AVENUE N.E. - POTENTIAL SAFETY HAZARD TO PEDESTRIANS. GROUND SLOW TO DRY AFTER WINTER PRECIPITATION DUE TO LOCATION ON SHADED NORTH SIDE OF PORTABLE BUILDINGS.
4. MUDDY AREA AGGRAVATED BY PEDESTRIAN TRAFFIC. GROUND SLOPES TOWARDS BUILDINGS, WITH LACK OF POSITIVE DRAINAGE.
5. LARGE, WELL-TRODDEN MUDDY SURFACE SUBJECT TO HIGH PEDESTRIAN USE. INLET AND DRYWELL NEAR CENTER OF AREA SUSCEPTIBLE TO SILTING AND CLOGGING, RESULTING IN ONLY PARTIALLY EFFECTIVE DRAINAGE.
6. HEAVILY TRODDEN AND ERODED AREA. EXISTING INLET AND DRYWELL NOT PROVIDING SUFFICIENT DRAINAGE.
7. PATIO SURFACES SUSCEPTIBLE TO ICE FORMATION IN WINTER, PARTICULARLY IN AREAS SHADED BY NORTH FACE OF BUILDING.
8. EROSION DUE TO STORMWATER DISCHARGING FROM ROOF SCUPPERS, COMPOUNDED BY HEAVY PEDESTRIAN TRAFFIC.
9. STEEPLY-SLOPING GROUND, WITH ASSOCIATED POTENTIAL SLOPE-STABILITY PROBLEMS. LANDSCAPING PROJECT IN PROGRESS TO EFFECTIVELY TERRACE SLOPE.
10. POOLING OF WATER DISCHARGING FROM ROOF SCUPPER AT BUILDING FOUNDATION.
11. CONCRETE WALK, SHADED BY BUILDING'S NORTH FACE, SUSCEPTIBLE TO ICING IN WINTER; POTENTIAL PEDESTRIAN SAFETY HAZARD.
12. KINDERGARTEN PLAY AREA IMPACTED BY DRAINAGE FROM DIRT AREA TO THE NORTH.
13. EXISTING ASPHALT PAVING

INDEX OF DRAWINGS

1. EXISTING CONDITIONS
2. RECOMMENDATIONS
3. TEXT, CALCULATIONS, DETAILS & PHOTOGRAPHS

LEGEND

- DRAINAGE BASIN BOUNDARY
- ERODED OR MUDDY AREA
- EXISTING FLOW LINE

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
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EXISTING CONDITIONS

COLLET PARK ELEMENTARY SCHOOL DRAINAGE STUDY

JEFF MORTENSEN NEW MEXICO 9547 REGISTERED PROFESSIONAL ENGINEER 07-15-94

DESIGNED BY J.G.M. /J.M.L.
DRAWN BY J.M.C./C.L.B.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS
1	7/94	MFD	UPDATE FOR MINI-GYM ADDITION
			AUG 4 1994

JOB NO. 871806
DATE 4-92
SHEET 1 OF 5

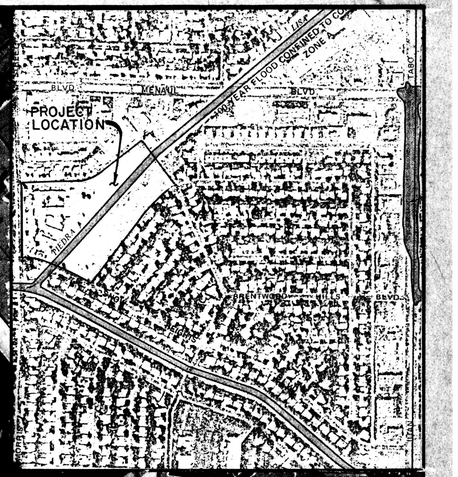
Master Plan

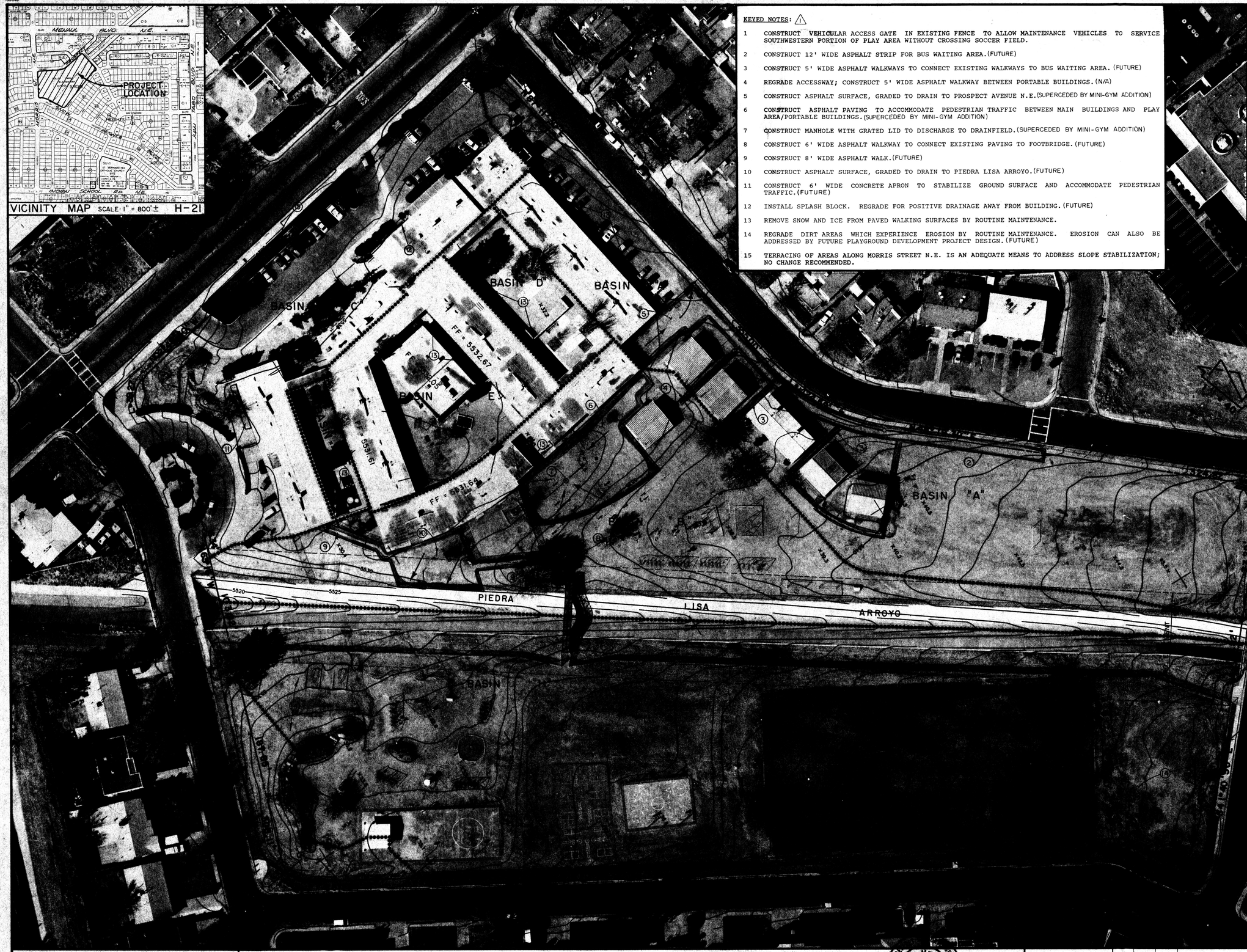
130538

VICINITY MAP SCALE: 1" = 800'± H-21

KEYED NOTES: ⚠

1. CONSTRUCT VEHICULAR ACCESS GATE IN EXISTING FENCE TO ALLOW MAINTENANCE VEHICLES TO SERVICE SOUTHWESTERN PORTION OF PLAY AREA WITHOUT CROSSING SOCCER FIELD.
2. CONSTRUCT 12' WIDE ASPHALT STRIP FOR BUS WAITING AREA.(FUTURE)
3. CONSTRUCT 5' WIDE ASPHALT WALKWAYS TO CONNECT EXISTING WALKWAYS TO BUS WAITING AREA. (FUTURE)
4. REGRADE ACCESSWAY; CONSTRUCT 5' WIDE ASPHALT WALKWAY BETWEEN PORTABLE BUILDINGS. (N/A)
5. CONSTRUCT ASPHALT SURFACE, GRADED TO DRAIN TO PROSPECT AVENUE N.E.(SUPERCEDED BY MINI-GYM ADDITION)
6. CONSTRUCT ASPHALT PAVING TO ACCOMMODATE PEDESTRIAN TRAFFIC BETWEEN MAIN BUILDINGS AND PLAY AREA/PORTABLE BUILDINGS.(SUPERCEDED BY MINI-GYM ADDITION)
7. CONSTRUCT MANHOLE WITH GRATED LID TO DISCHARGE TO DRAINFIELD.(SUPERCEDED BY MINI-GYM ADDITION)
8. CONSTRUCT 6' WIDE ASPHALT WALKWAY TO CONNECT EXISTING PAVING TO FOOTBRIDGE.(FUTURE)
9. CONSTRUCT 8' WIDE ASPHALT WALK.(FUTURE)
10. CONSTRUCT ASPHALT SURFACE, GRADED TO DRAIN TO PIEDRA LISA ARROYO.(FUTURE)
11. CONSTRUCT 6' WIDE CONCRETE APRON TO STABILIZE GROUND SURFACE AND ACCOMMODATE PEDESTRIAN TRAFFIC.(FUTURE)
12. INSTALL SPLASH BLOCK. REGRADE FOR POSITIVE DRAINAGE AWAY FROM BUILDING.(FUTURE)
13. REMOVE SNOW AND ICE FROM PAVED WALKING SURFACES BY ROUTINE MAINTENANCE.
14. REGRADE DIRT AREAS WHICH EXPERIENCE EROSION BY ROUTINE MAINTENANCE. EROSION CAN ALSO BE ADDRESSED BY FUTURE PLAYGROUND DEVELOPMENT PROJECT DESIGN.(FUTURE)
15. TERRACING OF AREAS ALONG MORRIS STREET N.E. IS AN ADEQUATE MEANS TO ADDRESS SLOPE STABILIZATION; NO CHANGE RECOMMENDED.





LEGEND

- DRAINAGE BASIN BOUNDARY
- PROPOSED ASPHALT
- PROPOSED SHEETFLOW

JEFF MORTENSEN & ASSOCIATES, INC.
6010-B MIDWAY PARK BLVD. N.E.
ALBUQUERQUE NEW MEXICO 87109
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RECOMMENDATIONS

COLLET PARK ELEMENTARY SCHOOL DRAINAGE STUDY

NEW MEXICO (8547) REGISTERED PROFESSIONAL ENGINEER 07-22-94

DESIGNED BY J.G.M. / J.M.L.
DRAWN BY J.M.C. / C.L.B.
APPROVED BY J.G.M.

NO.	DATE	BY	REVISIONS
⚠	7/94	MFD	UPDATE FOR MINI-GYM ADDITION

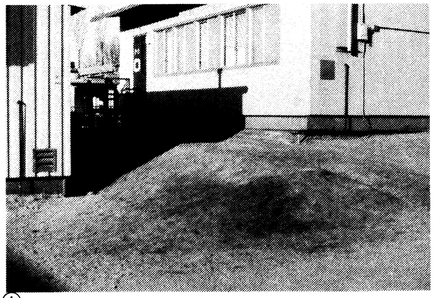
AUG 4 1994
HYDROLOGY SECTION

JOB NO. 871806
DATE 4-92
SHEET 2 OF 5

142347

KEY TO EXISTING CONDITIONS PHOTOGRAPHS

Photo Number	Description	Existing Conditions Keyed Notes Cross Reference (See Sheet 1 of 3)
①	Muddy, sloping area between portable buildings	2
②	Heavily trodden area to the east of main block	5
③	Eroded, muddy area adjacent to Piedra Lisa Arroyo	6
④	Eroded, muddy area adjacent to Piedra Lisa Arroyo	6
⑤	Eroded, muddy area adjacent to Piedra Lisa Arroyo. Kinder-garten area beyond exists in a depression.	6



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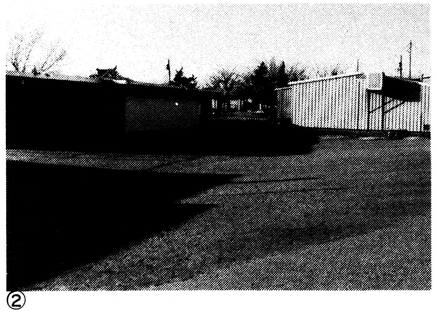

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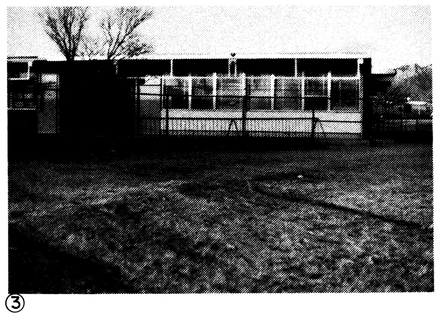

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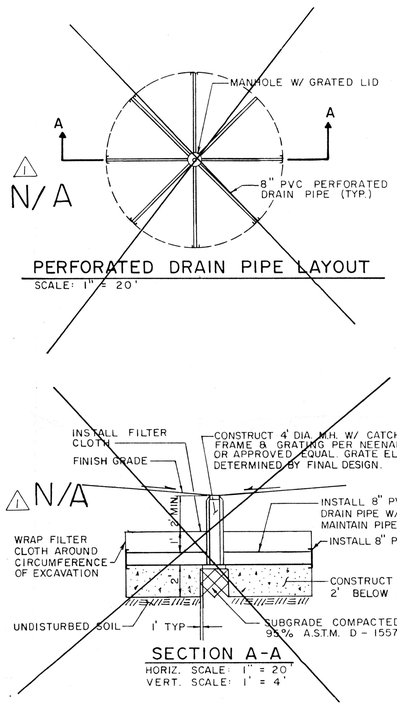
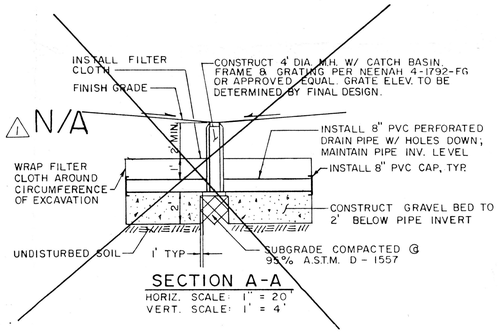
④

⑤



PERFORATED DRAIN PIPE LAYOUT
SCALE: 1" = 20'



SECTION A-A
HORIZ. SCALE: 1" = 20'
VERT. SCALE: 1" = 4'

DRAINAGE PLAN

Existing Conditions

As shown by the Vicinity Map, the site is located to the east of Morris Street N.E. and to the north of Snow Heights Blvd. N.E. The site is currently developed as an elementary school and comprises permanent and portable buildings, paved parking areas, paved and unpaved enclosed patios and two large play areas. As shown by Panel 25 of 50 of the National Flood Insurance Program, Flood Insurance Rate Maps (F.I.R.M.), for the City of Albuquerque, New Mexico, dated October 14, 1983, the Piedra Lisa Arroyo running through the site is a designated 100-year Flood Hazard Zone. However, this flood hazard zone is confined to the arroyo itself. The play area to the south of the Piedra Lisa Arroyo is characterized by a soccer field in the northeastern portion, a playground in the southwestern part and hard playing surfaces in the middle. This area drains for the most part into the Piedra Lisa Arroyo (Basin H), with some runoff from the southern corner (Basin G) discharging onto Cretta Street N.E. and Snow Heights Blvd. N.E. The entire area is generally muddy and susceptible to erosion. Drainage patterns associated with the portion of the site to the north of the Piedra Lisa Arroyo are such that this area may be subdivided into six drainage basins, as shown on Sheet 1 of 3. Basin A discharges onto Prospect Avenue N.E.; Basins B and E discharge into Piedra Lisa Arroyo; Basin C discharges into Morris Street N.E. and Snow Heights Blvd. N.E.; and Basins D and F consist of enclosed patios forming 'closed' drainage basins. This northern portion of the site is subject to considerable problems, largely related to heavy pedestrian traffic between buildings. Through review of the site topography and field observation of site conditions, these problems have been identified. They are illustrated on Sheet 1 of 3. The photographs reproduced on Sheet 3 of 3 further demonstrates the nature and extent of the problems.

Recommendations

Sheet 2 of 3 illustrates recommended improvements to correct and/or alleviate the problems noted on Sheet 1 of 3. The most significant areas of concern lie in Basins A and B, and pertain to the functionality and safety of areas of heavy pedestrian use. It is proposed to pave the more critical areas in order to achieve improvements in general safety, durability and appearance. Significant landscaping work has already been carried out along the Morris Street N.E. site boundary, resulting in containment of erosion and an improvement in appearance. Its continuation to encompass the southwest corner of the site at the intersection of Morris Street N.E. and Snow Heights Blvd. N.E. would address the potential problems of slope stability present in this area.

CALCULATIONS

Ground Cover Information

From SCS Bernalillo County Soil Survey,
Plate 32: EtC - Embudo Tijeras Complex
Hydrologic Soil Group: B
Existing & Developed Pervious Curve Number (DPM Plate 22.2 C-2)

Basin:	A	B	C	D	E	F	G	H
PCN:	79	79	61	61	79	61	79	70

Time of Concentration/Time to Peak

$T_c = 0.0078\ L^{0.77}/S^{0.385}$ (Kirpich Equation)

$T_p = T_c = 10$ min.

Point Rainfall

$P_6 = 2.45$ in. (DPM Plate 22.2 D-1)

Rational Method

Discharge: $Q = CiA$

where C varies
$i = P_6\ (6.84)\ T_c^{-0.51} = 5.18$ in/hr
$P_6 = 2.45$ in (DPM Plate 22.2D-1)
$T_c = 10$ min (minimum)
A = area, acres

SCS Method

Volume: $V = 3630(DRO)\ A$

Where DRO = Direct runoff in inches
A = area, acres

Existing Condition

1. Basin A
A_{total} = 83,930 sf = 1.93 Ac
Roof area = 13,530 sf (0.16)
Paved area = 9,330 sf (0.11)
Undeveloped area = 61,070 sf (0.73)
C = 0.54 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.54(5.18)1.93 = 5.4$ cfs
A_{imp} = 22,860 sf; % impervious = 27 %
Composite CN = 84 (DPM Plate 22.2 C-3)
DRO = 1.10 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 7,710$ cf

2. Basin B
A_{total} = 102,370 sf = 2.35 Ac
Roof area = 9,840 sf (0.10)
Paved area = 24,290 sf (0.23)
Undeveloped area = 68,240 sf (0.67)
C = 0.58 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.58(5.18)2.35 = 7.1$ cfs
A_{imp} = 34,130 sf; % impervious = 33 %
Composite CN = 85 (DPM Plate 22.2 C-3)
DRO = 1.15 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 9,810$ cf

3. Basin C
A_{total} = 52,700 sf = 1.21 Ac
Roof area = 15,850 sf (0.30)
Paved area = 25,050 sf (0.48)
Landscaped area = 11,800 sf (0.22)
C = 0.78 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.78(5.18)1.21 = 4.9$ cfs
A_{imp} = 40,900 sf; % impervious = 78 %
Composite CN = 89 (DPM Plate 22.2 C-3)
DRO = 1.45 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 6,370$ cf

4. Basin D
A_{total} = 10,470 sf = 0.24 Ac
Roof area = 1,000 sf (0.10)
Paved area = 8,670 sf (0.83)
Landscaped area = 800 sf (0.07)
C = 0.90 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.90(5.18)0.24 = 1.1$ cfs
A_{imp} = 9,670 sf; % impervious = 92 %
Composite CN = 94 (DPM Plate 22.2 C-3)
DRO = 1.80 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 1,570$ cf

5. Basin E
A_{total} = 26,850 sf = 0.62 Ac
Roof area = 18,580 sf (0.69)
Paved area = 1,220 sf (0.05)
Landscaped area = 300 sf (0.01)
Undeveloped area = 6,750 sf (0.25)
C = 0.77 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.77(5.18)0.62 = 2.5$ cfs
A_{imp} = 19,800 sf; % impervious = 74 %
Composite CN = 93 (DPM Plate 22.2 C-3)
DRO = 1.75 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 3,940$ cf

6. Basin F
A_{total} = 4,220 sf = 0.10 Ac
Paved area = 3,820 sf (0.91)
Landscaped area = 400 sf (0.09)
C = 0.89 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.89(5.18)0.10 = 0.5$ cfs
A_{imp} = 3,820 sf; % impervious = 91 %
Composite CN = 94 (DPM Plate 22.2 C-3)
DRO = 1.80 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 650$ cf

7. Basin G
A_{total} = 7,530 sf = 0.17 Ac
Roof area = 250 sf (0.03)
Paved area = 120 sf (0.01)
Undeveloped area = 7,160 sf (0.96)
C = 0.42 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.42(5.18)0.17 = 0.4$ cfs
A_{imp} = 370 sf; % impervious = 4 %
Composite CN = 80 (DPM Plate 22.2 C-3)
DRO = 0.85 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 520$ cf

8. Basin H
A_{total} = 198,100 sf = 4.55 Ac
Paved area = 30,490 sf (0.15)
Landscaped area = 46,500 sf (0.24)
Undeveloped area = 121,110 sf (0.61)
C = 0.45 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.45(5.18)4.55 = 10.6$ cfs
A_{imp} = 30,490 sf; % impervious = 15 %
Composite CN = 74 (DPM Plate 22.2 C-3)
DRO = 0.60 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 9,910$ cf

Developed Condition

1. Basin A
A_{total} = 83,930 sf = 1.93 Ac
Roof area = 13,530 sf (0.16)
Paved area = 18,070 sf (0.22)
Undeveloped area = 52,330 sf (0.62)
C = 0.60 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.60(5.18)1.93 = 6.0$ cfs
A_{imp} = 31,600 sf; % impervious = 38 %
Composite CN = 86 (DPM Plate 22.2 C-3)
DRO = 1.25 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 8,760$ cf

2. Basin B
A_{total} = 102,370 sf = 2.35 Ac
Roof area = 9,840 sf (0.10)
Paved area = 37,820 sf (0.37)
Undeveloped area = 54,710 sf (0.53)
C = 0.65 (Weighted average per Emergency Rule, 1/14/86)
$Q_{100} = CiA = 0.65(5.18)2.35 = 7.9$ cfs
A_{imp} = 47,660 sf; % impervious = 47 %
Composite CN = 88 (DPM Plate 22.2 C-3)
DRO = 1.40 in (DPM Plate 22.2 C-4)
$V_{100} = 3630\ (DRO)A = 11,940$ cf

3. Basins C through H
No Change

Comparison

1. Basin A
$\Delta Q_{100} = 6.0 - 5.4 = 0.6$ cfs (increase)
$\Delta V_{100} = 8,760 - 7,710 = 1050$ cf (increase)

2. Basin B
$\Delta Q_{100} = 7.9 - 7.1 = 0.8$ cfs (increase)
$\Delta V_{100} = 11,94 - 9,810 = 2130$ cf (increase)

3. Basins C through H
No Change

Calculations

The calculations which appear hereon analyze both the existing and developed conditions for the 100-year, 6-hour rainfall event. The peak discharge of runoff has been calculated using the Rational Method while the SCS Method has been used to quantify the volume of runoff generated. Both Methods have been used in accordance with the City of Albuquerque Development Process Manual, Volume II, coupled with the Mayor's Emergency Rule adopted January 14, 1986. As shown by these calculations, the proposed improvements will be accompanied by an overall increase in site discharge of 1.4 cfs with an associated increase in runoff volume of 3180 cf.

Engineer's Estimate

Included with this submittal is a preliminary engineer's estimate for the drainage improvements recommended above. This estimate is based upon City of Albuquerque Standard Unit Prices which are representative of the local market. Due to design variables, contingencies have been added.

ITEM NO.	ITEM DESCRIPTION AND UNIT	UNIT PRICE	QUANTITY	AMOUNT
0301.03	SUBGRADE PREP, RES 6", PER SY	1.15	2500	2,875.00
0336.15	2" AC SFC, 1500, M, PER SY	4.00	2150	8,600.00
0336.21	2" AC SFC, 1500, W/O M, PER SY	7.50	350	2,625.00
0340.01	SDWK, 4", PCC, PER SF	2.60	270	702.00
XXXX.XX	SPLASH BLOCK, PER EA	200.00	1	200.00
0410.03	CH LK FNC, REM & REINST, PER SF	3.00	200	600.00
0410.02	CHAIN LINK GATE, PER SF	7.00	120	840.00
0920.01	MH, 4' DIA, < 6' D, PER EA	1,200.00	1	1,200.00
0901.03	8" PVC PIPE, SCH 35, SD, PER LF	5.90	180	1,062.00
0204.01	EXCAV, BF & COMP, U, > 2', PER CY	2.35	380	893.00
0603.04	GVL FILTER MATL, PER CY	33.00	130	4,290.00
0603.05	FILTER CLOTH, PER SF	0.40	2370	948.00
	SUBTOTAL:			24,835.00
	CONTINGENCIES @ 20%:			4,967.00
	SUBTOTAL:			29,802.00
	NMGRT @ 5.75%:			1,713.62
	TOTAL:			31,515.62

⚠ NOTE:

THIS PLAN PREPARED PRIOR TO ADOPTION OF THE REVISION OF SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY, 1993 FOR 40 ACRE AND SMALLER BASINS, AND WAS INTENDED FOR APS USE ONLY. THE FOLLOWING SHEETS ARE A REVISION TO THE ORIGINAL PLAN AND TAKES INTO ACCOUNT THE "REVISIONS". SHEETS 1, 2, & 3 ARE PROVIDED FOR INFORMATION ONLY.

FOR INFORMATION ONLY

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER
7-27-94

JEFF MORTENSEN & ASSOCIATES, INC.
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ALBUQUERQUE, NEW MEXICO 87109
ENGINEERS & SURVEYORS (505)345-4250

TEXT, CALCULATIONS, DETAILS, & PHOTOGRAPHS

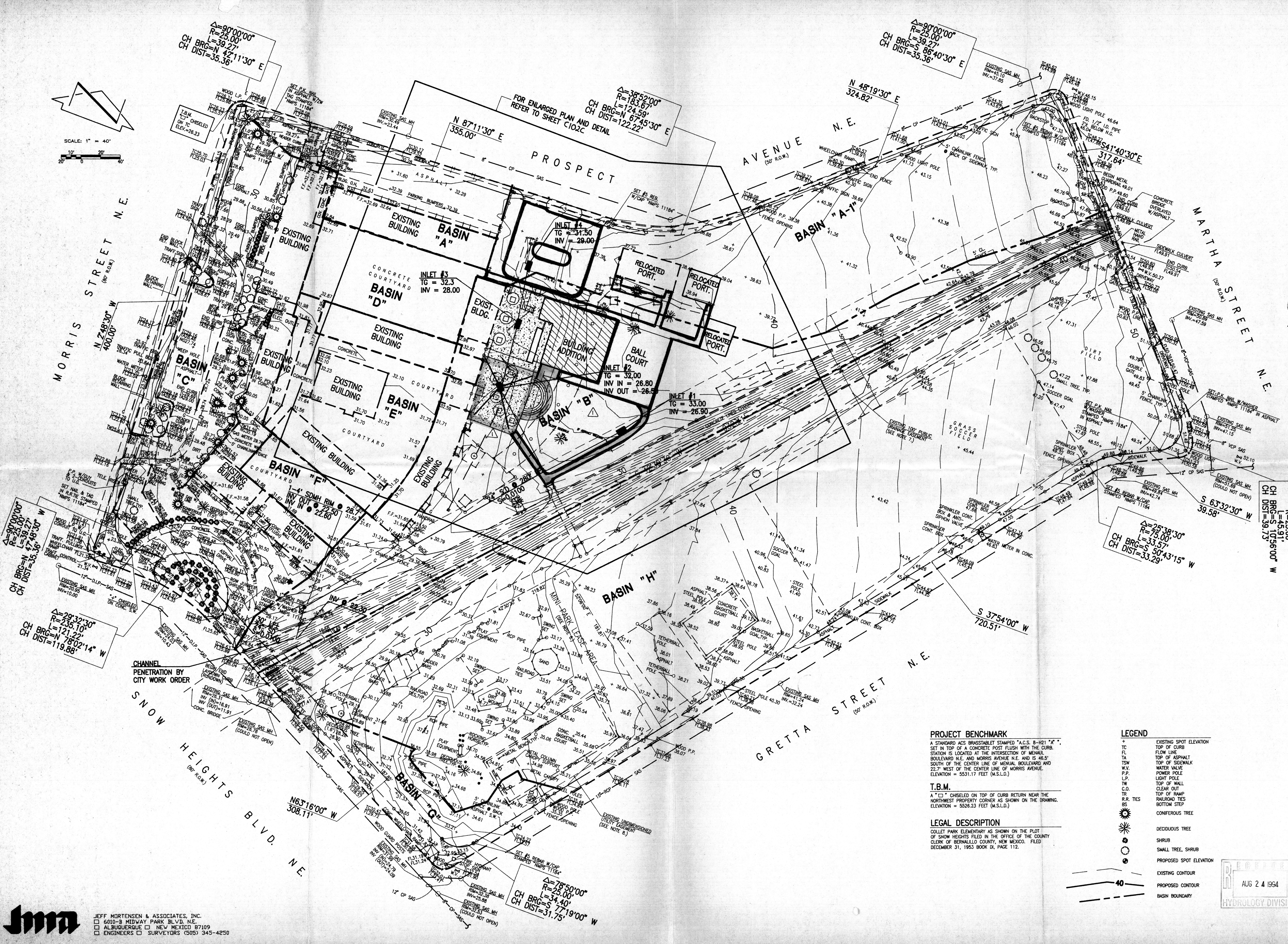
COLLET PARK ELEMENTARY SCHOOL DRAINAGE STUDY

DESIGNED BY J.G.M. / J.M.L.
DRAWN BY C.L.B.
APPROVED BY J.G.M.

NO	DATE	BY	REVISIONS
⚠1	7/94	MFD	ADD. NOTE, DELETE SECTIONS & DETAILS

AUG 4 1994

JOB NO. 871806
DATE 4-92
SHEET 3 OF 5



PROJECT BENCHMARK

A STANDARD ACS BRASSTABLET STAMPED "A.C.S. 8-H21 "A" ", SET IN TOP OF A CONCRETE POST FLUSH WITH THE CURB. STATION IS LOCATED AT THE INTERSECTION OF MENAUL BOULEVARD N.E. AND MORRIS AVENUE N.E. AND IS 46.5' SOUTH OF THE CENTER LINE OF MENUAL BOULEVARD AND 22.7' WEST OF THE CENTER LINE OF MORRIS AVENUE. ELEVATION = 5531.17 FEET (M.S.L.D.)

T.B.M.

A "□" CHISELED ON TOP OF CURB RETURN NEAR THE NORTHWEST PROPERTY CORNER AS SHOWN ON THE DRAWING. ELEVATION = 5526.23 FEET (M.S.L.D.)

LEGAL DESCRIPTION

COLLET PARK ELEMENTARY AS SHOWN ON THE PLOT OF SNOW HEIGHTS FILED IN THE OFFICE OF THE COUNTY CLERK OF BERNALILLO COUNTY, NEW MEXICO. FILED DECEMBER 31, 1953 BOOK DI, PAGE 112.

LEGEND

+	EXISTING SPOT ELEVATION
TC	TOP OF CURB
FL	FLOW LINE
TA	TOP OF ASPHALT
TSW	TOP OF SIDEWALK
W.V.	WATER VALVE
P.P.	POWER POLE
L.P.	LIGHT POLE
TW	TOP OF WALL
C.O.	CLEAR OUT
TR	TOP OF RAMP
R.R. TIES	RAILROAD TIES
BS	BOTTOM STEP
	CONIFEROUS TREE
	DECIDUOUS TREE
	SHRUB
	SMALL TREE, SHRUB
	PROPOSED SPOT ELEVATION
	EXISTING CONTOUR
40	PROPOSED CONTOUR
	BASIN BOUNDARY

RECEIVED AUG 24 1994 HYDROLOGY DIVISION

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Architect

Engineer

JEFFREY G. MORTENSEN NEW MEXICO 8547 REGISTERED PROFESSIONAL ENGINEER 06-24-94

Project

ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements

2100 Morris NE
Albuquerque, New Mexico

Sheet Title: PRIVATE STORM DRAIN SITE PLAN

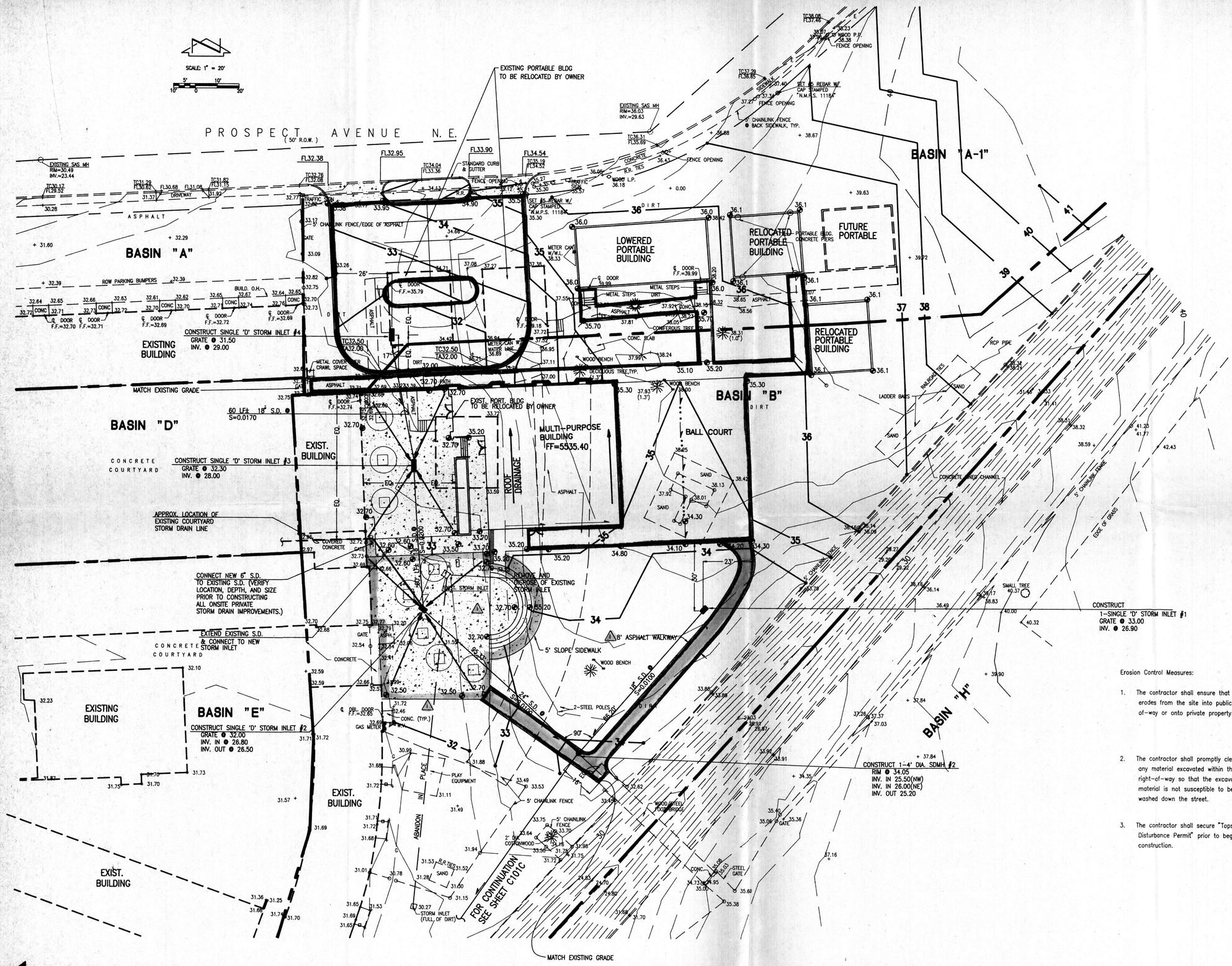
Revisions: ⚠1 ADD WALKWAY & AMPHITHEATER

Date: 7/94

HSA Project: 9317.02

CADD Files: 940221A.DWG

Sheet Number: C101C



JEFF MORTENSEN & ASSOCIATES, INC.
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☐ ALBUQUERQUE ☐ NEW MEXICO 87109
☐ ENGINEERS ☐ SURVEYORS (505) 345-4250

Construction Notes:

1. Two (2) working days prior to any excavation, contractor must contact New Mexico One Call System 260-1990, for location of existing utilities.
2. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all potential obstructions. Should a conflict exist, the contractor shall notify the engineer in writing so that the conflict can be resolved with a minimum amount of delay.
3. All work on this project shall be performed in accordance with applicable federal, state and local laws, rules and regulations concerning construction safety and health.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and Procedures.
5. If any utility lines, pipelines, or underground utility lines are shown on these drawings, they are shown in an approximate manner only, and such lines may exist where none are shown. If any such existing lines are shown, the location is based upon information provided by the owner of said utility, and the information may be incomplete, or may be obsolete by the time construction commences. The engineer has conducted only preliminary investigation of the location, depth, size, or type of existing utility lines, pipelines, or underground utility lines. This investigation is not conclusive, and may not be complete, therefore, makes no representation pertaining thereto, and assumes no responsibility or liability therefor. The contractor shall inform itself of the location of any utility line, pipeline, or underground utility line in or near the area of the work in advance of and during excavation work. The contractor is fully responsible for any and all damage caused by its failure to locate, identify and preserve any and all existing utilities, pipelines, and underground utility lines. In planning and conducting excavation, the contractor shall comply with state statutes, municipal and local ordinances, rules and regulations, if any, pertaining to the location of these lines and facilities.
6. The design of planters and landscaped areas is not part of this plan. All planters and landscaped areas adjacent to the building(s) shall be provided with positive drainage to avoid any ponding adjacent to the structure. For construction details, refer to landscaping plan.
7. All storm drain shall be reinforced concrete pipe (RCP) class III or approved substitute.
8. Rough grading and Portable Classroom relocations to be accomplished by separate contract.

Erosion Control Measures:

1. The contractor shall ensure that no soil erodes from the site into public right-of-way or onto private property.
2. The contractor shall promptly clean up any material excavated within the public right-of-way so that the excavated material is not susceptible to being washed down the street.
3. The contractor shall secure "Topsoil Disturbance Permit" prior to beginning construction.

REGISTERED AUG 24 1994 ENGINEERING DIVISION

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Architect

Engineer

JEFFREY G. MORTENSEN NEW MEXICO 8647 REGISTERED PROFESSIONAL ENGINEER 8-24-94

Project

ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements
2100 Morris NE
Albuquerque, New Mexico

Sheet Title:
GRADING AND DRAINAGE PLAN

Revisions:
⚠1 ADD WALKWAY & AMPHITHEATER

Date: 7/94

HSA Project: 9317.02

CADD File: 940221B.DWG

Sheet Number:
C102C

DRAINAGE PLAN

The following items concerning the Collet Park Elementary School Grading and Drainage Plan are contained hereon:

1. Vicinity Map
2. F.I.R.M.
3. Grading Plan
4. Calculations

As shown on the Vicinity Map, the site is located to the east of Morris Street N.E. and to the north of Snow Heights Boulevard N.E. The site is currently developed as an elementary school and comprises of permanent and portable buildings, paved parking areas, paved and unpaved enclosed patios, and two large play areas.

Review of Panel 25 of 50 of the National Flood Insurance Program, Flood Insurance Rate Maps for the City of Albuquerque, Bernalillo County, New Mexico, dated October 14, 1983, the Piedra Lisa Arroyo runs through the site and is a designated 100-year Flood Hazard Zone. However, this flood hazard zone is confined to the arroyo.

The project consists of the addition of a parking lot, the moving of some portables, regrading part of the site, and the construction of a multi-purpose building. In addition to these improvements, a storm drain line with associated inlets will be constructed so as to alleviate the problems of standing water in some areas. This storm drain will discharge into the Piedra Lisa Arroyo. The storm drain will link various enclosed basins (i.e., Basins E, D) so that they may discharge their runoff to the Arroyo.

The Calculations which appear hereon analyzes the developed conditions for the 100-year, 6-hour rainfall event. The existing condition calculations are included in the Master Drainage Plan dated 7/15/1994. The Procedure for 40-acre and Smaller Basins, as set forth in the Revision of Section 22.2, Hydrology of the Development Process Manual, Volume 2, Design Criteria, dated January, 1993, has been used to quantify the peak rate of discharge and volume of runoff generated. As shown by these calculations, an increase in runoff is expected. The DPM Revision has been used for the developed condition only as part of the evaluation of storm drain capacities. Storm drain capacities have been evaluated based upon the Manning's Equation using Haestad's Flowmaster program. As shown by these calculations, the proposed private storm drain system will have adequate capacity to handle the runoff from this project as well as future site improvements.

⚠CALCULATIONS

Site Characteristics

1. Precipitation Zone = 4
2. $P_{6,100} = P_{360}$ = 2.90 in.
3. Total Area (A_T) = 5.24 acres
4. Developed Land Treatment

Basin "A"	(18,000/0.41)	100
Treatment	Area (sf/ac)	%
D	18,000/0.41	100
Basin "A-1"	(65,930/1.52)	100
B	1,050/0.02	1.6
C	54,610/1.25	82.8
D	10,270/0.25	15.6
Basin "B"	(102,370/2.35)	100
B	14,555/0.34	14.2
C	59,365/1.36	58.0
D	28,450/0.65	27.8
Basin "D"	(10,470/0.24)	100
B	800/0.02	7.6
D	9,670/0.22	92.4
Basin "E"	(26,850/0.62)	100
B	300/0.01	1.1
C	6,750/0.15	25.1
D	19,800/0.46	73.8
Basin "F"	(4,220/0.10)	100
B	400/0.01	9.5
D	3,820/0.09	90.5

Developed Condition

Basin "A"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = (2.64)(0.41)/(0.41) = 2.64$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.64/12)(0.41) = 0.0902$ ac.ft.; 3,030 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (5.25)(0.41) = 2.2$ cfs

Basin "A-1"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.02)+(1.46)(1.25)+(2.64)(0.25)]/(1.52) = 1.65$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.65/12)(1.52) = 0.2089$ ac.ft.; 9,100 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.02)+(3.73)(1.25)+(5.25)(0.25) = 6.0$ cfs

Basin "B"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.34)+(1.46)(1.36)+(2.64)(0.65)]/(2.35) = 1.73$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (1.73/12)(2.35) = 0.3388$ ac.ft.; 14,760 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.34)+(3.73)(1.36)+(5.25)(0.65) = 9.5$ cfs

Basin "D"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.02)+(2.64)(0.22)]/(0.24) = 2.51$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.51/12)(0.24) = 0.0502$ ac.ft.; 2,190 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.02)+(5.25)(0.22) = 1.2$ cfs

Basin "E"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.01)+(1.46)(0.15)+(2.64)(0.46)]/(0.62) = 2.33$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.33/12)(0.62) = 0.1203$ ac.ft.; 5,240 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.01)+(3.73)(0.15)+(5.25)(0.46) = 3.0$ cfs

Basin "F"

1. Volume

$E_W = (E_A A_A + E_B + E_C A_C + E_D A_D)/A_T$

$E_W = [(1.08)(0.01)+(2.64)(0.09)]/(0.10) = 2.48$ in.

$V_{100} = (E_W/12)A_T$

$V_{100} = (2.48/12)(0.1) = 0.0207$ ac.ft.; 900 cf

2. Peak Discharge

$Q_p = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

$Q_p = Q_{100} = (2.92)(0.01)+(5.25)(0.09) = 0.5$ cfs

Pipe Hydraulics (Using Haestad Method's "Flowmaster" program)

Inlet #4 to Inlet #3 (18" SD)
(Assume all of Basin A-1 drains to Inlet #4)

Basin A-1 $Q_{100} = 6.0$ cfs
n = 0.013
S = 0.0170
Pipe = 18"
$Q_{cap} = 14.70$ cfs > Q_{100}

Inlet #3 to Inlet #2
(Assume all of Basin B and Basin A-1 drain into Inlet)

$Q_{100} = 9.5$ cfs + 6.0 cfs = 15.5 cfs

n = 0.013
S = 0.0200
Pipe = 18"
$Q_{cap} = 15.9$ cfs > Q_{100}

Inlet #2 to SDMH #2
(Assume Basin A-1 and Basin B drain to SDMH #2)

$Q_{100} = 15.5 + 1.2 (D) = 16.7$ cfs

n = 0.013
S = 0.0100
Pipe = 24"
$Q_{cap} = 24.3$ cfs > Q_{100}

Inlet #1 to SDMH #2
(Assume Basin B drains to Inlet #1)

$Q_{100} = 9.5$ cfs

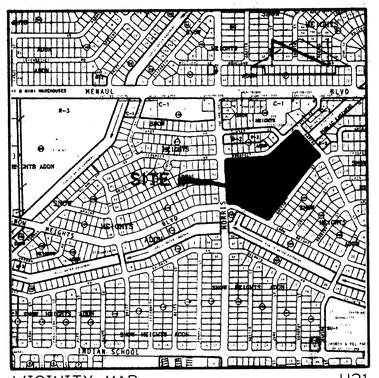
n = 0.013
S = 0.0100
Pipe = 18"
$Q_{cap} = 11.3$ cfs > Q_{100}

SDMH #2 to SDMH #1

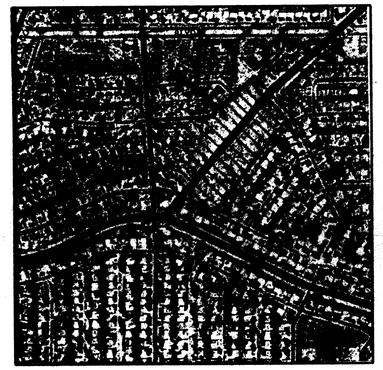
$Q_{100} = 16.7$ cfs, however design for future connection of Basins E (E) and F (F) $Q_{Design} = 20.2$ cfs

$Q_{Design} = 16.7 + 3.0 + 0.5 = 20.2$ cfs

n = 0.013
S = 0.0100
Pipe = 24"
$Q_{cap} = 24.3$ cfs > Q_{Design}



VICINITY MAP H21
1" = 750' (APPROX.)



F.I.R.M. MAP 25 OF 50
1" = 500' (APPROX.)

AUG 2 4 1994

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ALBUQUERQUE PUBLIC SCHOOLS
Collet Park Elementary School Addition & Drainage Improvements
2100 Morris NE
Albuquerque, New Mexico

Sheet Title:
DRAINAGE PLAN AND CALCULATIONS

Revisions:
⚠ CALCULATION REVISION

Date: 7/94
HSA Project: 9317.02
CADD Files: 940221C.DWG

Sheet Number:
C201C