



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Cuatro Development Building Permit #: _____ City Drainage #: _____
DRB#: _____ EPC#: _____ Work Order#: _____
Legal Description: Lots 1 thru 12, Block 2, Paris Addition, Town of ABQ. GRANT
City Address: 4th Street, Between Summer Ave & Kinley Avenue, West of 4th
Engineering Firm: Applied Engineering & Surveying Inc. Contact: Gilbert Aldaz
Address: 1605 Blair Drive NE, Albuquerque, NM 87112
Phone#: 505-480-8125 Fax#: _____ E-mail: galda247@yahoo.com
Owner: Greater Albuquerque Housing Contact: Louis Kolker
Address: 320 Gold Avenue SW, Albuquerque, NM 87112
Phone#: 505-262-9697 Fax#: _____ E-mail: _____
Architect: Integrated Design & Architect Contact: _____
Address: 906 1/2 Park Avenue SW, Albuquerque, NM 87102
Phone#: 505-243-3499 Fax#: _____ E-mail: bob@integrateddesignarch.com
Surveyor: Surv Tek, Inc Contact: Russ Hugg
Address: 9384 Valley View Drive, Albuquerque, NM 87114
Phone#: 505-897-3366 Fax#: 505-897-3377 E-mail: russhugg@survtek.com
Contractor: _____ Contact: _____
Address: _____
Phone#: _____ Fax#: _____ E-mail: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☒ EROSION & SEDIMENT CONTROL PLAN (ESC)
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEER'S CERT (TCL)
☐ ENGINEER'S CERT (DRB SITE PLAN)
☐ ENGINEER'S CERT (ESC)
☐ SO-19
☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☒ SIA/FINANCIAL GUARANTEE RELEASE
☒ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ CERTIFICATE OF OCCUPANCY (PERM)
☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL ☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL ☐ ESC PERMIT APPROVAL
☐ WORK ORDER APPROVAL ☐ ESC CERT. ACCEPTANCE
☐ GRADING CERTIFICATION ☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED: ☒ Yes ☐ No

DATE SUBMITTED: 09-17-14

Copy Provided Curtis Cherne
By: Gilbert Aldaz

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location, and scope to the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development



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Erosion & Sediment Control (ESC) Plan - CHECKLIST

ESC Plan - General Content

- ☐ Grading & Drainage Plan must be approved for the site - see Attached sheet 4
- ☒ Site Location Map / North Arrow, Scale, etc.
- ☒ Drafting standards must generally comply with DPM Chapter 27
- ☒ Show Project Boundary and Limits of Construction Disturbance
- ☒ Show Site Drainage / topography survey / contours - see sheets 2 & 3
- ☒ Identify locations where Offsite run-off enters the site - see sheet 1 - offsite flows
- ☒ Identify Discharge locations (ditch, channel, stream, river) - see sheet 1
- ☒ Design BMPs for 2-year / 24-hour Storm, per NOAA Atlas 14
- ☒ List Total Site Acreage and Total Disturbed Acres on the Plan
- ☒ Show limits of soil disturbance covered by this ESC Plan
- ☐ Provide a Legend of BMPs and other symbols used on the plan
- ☒ Shown Erosion & Sediment Control BMP's
- ☒ Provide BMP installation details (or reference standards)
- ☐ Off-site Inlet filters will generally NOT be allowed as they should not be needed, and will restrict system capacity*
OK

Narrative / General Notes

- ☒ Name of Plan Designer, P.E. Stamp, Signature & Date
- ☒ Refer to SWPPP and requirement for site to be in compliance
- ☐ Describe Construction Phasing, if applicable N/A
- ☒ Keep dirt and debris on the site Note 5
- ☒ Clean fugitive dirt/debris from street at end of each day Note 5
- ☒ Maintain Good Housekeeping per SWPPP Note 4
- ☒ BMP Inspection and Maintenance Requirements
- ☒ BMP Remove schedule / sequence
- ☐ Describe Final Site Stabilization Measures - Permanent Improvements

Common BMP items to consider

- | | |
|--|--|
| <input checked="" type="checkbox"/> Sediment - Perimeter Fence | <input checked="" type="checkbox"/> Erosion - Concrete Truck Washout facility / plan
Location TBD |
| <input type="checkbox"/> Sediment - Inlet Protection, On-Site ONLY * | <input type="checkbox"/> Erosion - Swales / Check Dams / Wattles N/A |
| <input checked="" type="checkbox"/> Sediment - Construction Entrance / Tire Wash ? | <input type="checkbox"/> Sediment - Desatation Ponds N/A |

DRAINAGE PLAN

THE FOLLOWING ITEMS CONCERN A PROPOSED 56 UNIT SENIOR HOUSING PROJECT KNOWN AS THE CUATRO SENIOR APARTMENTS WHICH IS LOCATED ON FOURTH STREET, ALBUQUERQUE, NEW MEXICO. THE FOLLOWING GRADING AND DRAINAGE PLAN ARE CONTAINED HEREON:

1. DRAINAGE CALCULATIONS
2. VICINITY MAP (J-14)
3. FLOOD INSURANCE RATE MAP 35001C0332G - SEPT 26, 2008

EXISTING CONDITIONS

AS SHOWN BY THE VICINITY MAP, THE SITE IS BOUNDED ON THE SOUTH BY SUMMER AVENUE NW, ON THE WEST BY AN ALLEY, ON THE NORTH BY KINLEY AVENUE AND ON THE EAST BY FOURTH STREET NW (SEE ATTACHED VICINITY MAP J-14). THE PARCEL'S LEGAL DESCRIPTION IS WITH A LEGAL DESCRIPTION OF LOTS 1 THRU 12, BLOCK 2, PARIS ADDITION WITHIN THE TOWN OF ALBUQUERQUE GRANT, PROJECTED SECTION 17 TOWNSHIP 10 NORTH, RANGE 3 EAST, CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO. THIS SITE CONTAINS APPROXIMATELY 0.98 ACRES.

PER A RECENT SITE VISIT DONE AS PART OF PREPARING THIS DRAINAGE PLAN THE EXISTING SITE HAS THE ENTIRE AREA PAVED WITH EXISTING ASPHALT AND CURRENTLY IS BOUNDED AND SECURED BY A CHAINLINK FENCE. PER HISTORICAL RECORDS AND THE TOPOGRAPHIC SURVEY THE SITE WAS ONCE USED AS A LOT FOR VEHICLE SALES WITH SOME EXISTING FOUNDATIONS THAT SERVED SMALL BUILDINGS. THE AREA CURRENTLY DRAINS FROM THE CENTER OF THE LOT TOWARDS FOURTH STREET NW AND TO THE WEST ALLEY. THE AREA IS RELATIVELY FLAT WITH SLOPES AVERAGING 0.5 PERCENT IN EACH DIRECTION.

THERE IS AN EXISTING 24" STORM DRAIN SYSTEM ALONG FOURTH STREET NW WITH TWO DROP INLETS ADJACENT TO THE SITE CURB FLOWLINE. THE SIDE STREETS KINLEY AVENUE NW AND SUMMER AVENUE NW CURRENTLY DRAIN TO FOURTH STREET NW AND DISCHARGE INTO THESE TWO DROP INLETS. THERE IS ALSO A 24" STORM DRAIN ON SUMMER AVENUE NW AND A 15" STORM DRAIN ON KINLEY AVENUE NW THAT DISCHARGE INTO THIS EXISTING STORM DRAIN ON FOURTH STREET NW.

THE SITE DOES NOT LIE WITHIN A DESIGNATED 100 YEAR FLOODPLAIN ACCORDING TO FLOOD INSURANCE RATE 35001C0332G; HOWEVER, A FLOODPLAIN ZONE AO (DEPTH 1) EXIST AT THE NORTHEAST CORNER ON THE STREET SECTION OF FOURTH STREET NW AND KINLEY AVENUE NW. THE THE FINISH FLOOR FOR THE BUILDING HAS BEEN SET AT AN ELEVATION OF 1.0 FOOT ABOVE THE FLOWLINE OF THE CURB AT THE NORTHEAST CORNER OF THE SITE RELATIVE TO FOURTH STREET NW AND KINLEY AVENUE NW.

PROPOSED CONDITIONS

THE PROPOSAL FOR REPLATTING OF THIS SITE CONSIST OF VACATING ALL THE EXISTING LOT LINES REFERENCED ABOVE INTO ONE LEGAL TRACT FOR THIS APARTMENT COMPLEX.

AS SHOWN BY THE PLAN, THE PROJECT CONSISTS OF 3 MAIN BUILDINGS THAT ARE ADJACENT TO FOURTH STREET NW. ALL THE BUILDINGS ROOF WILL DISCHARGE IN A WESTERLY DIRECTION AND OUTFALL INTO A STORM DRAIN PIPE SYSTEM THAT WILL BE CONNECTED INTO WATER HARVESTING TANKS ALONG THE WEST END OF THE SITE. AN ASPHALT PAVED DRIVEWAY AND PARKING SPACES WILL BE CONSTRUCTED ALONG ON THE WEST SIDE OF THE BUILDINGS AND AT THE MOST WESTERN END PARKING SPACES WILL BE PROVIDED THAT CONSIST OF A PERMEABLE PAVEMENT SECTION TO HELP REDUCE RUNOFF.

ALONG THE MOST WESTERN BOUNDARY A 5 FOOT SECTION OF LANDSCAPING AND WATER HARVESTING AREA WILL BE PROVIDED TO CAPTURE RUNOFF FROM THE PARKING LOT. ADJACENT TO THIS LANDSCAPING AREA WATER HARVESTING TANKS WILL BE PROVIDED BELOW GRADE THAT WILL HAVE INLETS TO CAPTURE ANY REMAINING FIRST FLUSH DISCHARGE FROM THE PARKING AREA IN ADDITION TO THE ROOF DRAINAGE AREAS.

THE PLAN SHOWS PROPOSED ELEVATIONS AND GRADES WITH PROPOSED FINISH FLOOR ELEVATIONS IN ORDER TO PROPERLY DRAIN THE SITE. THE INTENT OF THE DRAINAGE PLAN WILL BE TO CAPTURE THE FIRST 0.5 INCHES OF RUNOFF FROM THE SITE AND ANY REMAINING FLOW BEYOND THE 0.5 INCHES WILL OVERFLOW ON THE SPILLWAY AT THE SOUTHERN DRIVEWAY LOCATED ALONG SUMMER AVENUE NW AND WILL DISCHARGE INTO THE INLETS ON FOURTH STREET NW.

THE CALCULATIONS WHICH APPEAR HEREON, ANALYZE BOTH THE EXISTING AND DEVELOPED CONDITIONS FOR THE 100-YEAR, 6 HOUR RAINFALL RUNOFF FOR PEAK FLOWS AND STORM DURATION FOR VOLUME REQUIREMENTS. THE PROCEDURE FOR 40 ACRE AND SMALLER BASINS AS SET FORTH IN THE REVISION OF SECTION 22.7 HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL, VOLUME 2, DESIGN CRITERIA, DATED JANUARY 1993. THIS D.P.M. PROCEDURE IS USED FOR ANALYZING ONSITE FLOWS.

DOWNSTREAM CAPACITY

BASED ON THE 100-YEAR FLOOD PLAIN MAP THE STORM DRAIN SYSTEM WITHIN FOURTH STREET THAT IS ADJACENT TO THIS SITE DOES NOT SHOW WITHIN THE FLOODZONE AO (DEPTH 1); HOWEVER IT COULD BE THAT THERE IS LIMITED CAPACITY SINCE THERE IS A FLOODZONE AO (DEPTH 1) UPSTREAM OF THIS SITE AT THE NORTHEAST CORNER OF KINLEY AVENUE NW AND SUMMER AVENUE NW. SINCE THIS SITE WILL ACTUALLY BE REDUCING THE FLOW DUE TO THE DETAINAGE OF 0.5 INCHES OF RUNOFF ALONG WITH REDUCED IMPERVIOUS AREA THAN EXISTING CONDITIONS THIS SITE WILL ACTUALLY REDUCE THE RUNOFF TO DOWNSTREAM CAPACITY.

OFFSITE FLOWS

BASED ON THE TOPOGRAPHIC SURVEY IT APPEARS NO OFFSITE FLOW ENTERS THIS PROPERTY FROM THE STREET RIGHT-OFWAY OR ADJACENT PRIVATE PROPERTIES.

EROSION CONTROL

THE CONTRACTOR WILL BE REQUIRED TO PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR THE SITE PRIOR TO ROUGH GRADING OF THE SITE. THE CONTRACTOR WILL ALSO BE REQUIRED TO SECURE A TOP SOIL DISTURBANCE PERMIT ALONG WITH A STORM WATER POLLUTION PREVENTION PLAN FROM THE EPA PRIOR TO ROUGH GRADING OF THE SITE.

THE CONTRACTOR WILL ALSO BE REQUIRED TO PROTECT EXISTING INLETS ADJACENT TO THE SITE WITH SEDIMENT CONTROL MEASURES DURING CONSTRUCTION IN ORDER TO MINIMIZE SEDIMENT FROM ENTERING THESE INLETS.

DRAINAGE CALCULATIONS:

1. PRECIPITATION ZONE = 2
2. DESIGN STORM = DEPTH (INCHES) AT 100-YEAR STORM
6-HOUR = 2.35 INCHES
24-HOUR = 2.75 INCHES
10 DAY = 3.95 INCHES
3. PEAK DISCHARGE (CFS/ACRE) FOR 100-YEAR, ZONE 2, TABLE A-9:
Q = 1.56 CFS/ACRE SOIL UNCOMPACTED "A"
Q = 2.28 CFS/ACRE LANDSCAPED "B"
Q = 3.14 CFS/AC COMPACTED SOIL "C"
Q = 4.70 CFS/ACRE IMPERVIOUS AREA "D"
FOR WATERSHEDS LESS THAN OR EQUAL TO 40 ACRES

4. EXCESS PRECIPITATION, E (INCHES), FOR 100-YEAR, 6 HOUR STORM, ZONE 2, TABLE A-8:
E = 0.53 INCHES SOIL UNCOMPACTED "A"
E = 0.78 INCHES LANDSCAPED "B"
E = 1.13 INCHES COMPACTED SOIL "C"
E = 2.12 INCHES IMPERVIOUS AREA "D"
5. EXISTING CONDITIONS ONSISTE FLOWS
TOTAL AREA OF SITE = 0.98ACRES
IMPERVIOUS AREA "D" = 0.98ACRES
Q(EXISTING-6HR) = (4.70 X 0.98) = 4.61CFS (6HR) EXISTING 100-YEAR ONSITE FLOW RATE INTO EXISTING STORM DRAINS ADJACENT TO THE SITE ON FOURTH STREET NW
V(PROPOSED-6HR) = ((2.12 X 0.98)/ 12)
= 0.17AC-Ft = 7.542CF EXISTING 100-YEAR ONSITE FLOW VOLUME INTO EXISTING STORM DRAINS ADJACENT TO THE SITE ON FOURTH STREET NW
6. PROPOSED CONDITIONS ONSITE FLOWS TO SAD STORM DRAIN
DRAINAGE BASIN A-1
TOTAL AREA = 42.602SF = 0.978ACRES
ROOF AREA, TYPE "D" = 24,572SF = 0.564ACRES
ASPHALT/CONCRETE/PUTTING GREEN AREA, TYPE "D" = 12,807SF = 0.294AC
IMPERMEABLE PAVING, TYPE "B+/C-" = 3.496SF = 0.080
LANDSCAPING AREA TREATMENT "B" = 1748SF = 0.040AC

TREATMENT	AREA(ACRES)
A	0
B	0.04
B+,C-	0.08
D	0.86

Q(PROPOSED-6HR) = (2.28 X 0.04) + ((2.28 + 3.14)/2) X 0.08) + (4.70 X 0.86)
= 4.35CFs (6HR) PROPOSED 100-YEAR ONSITE FLOW VOLUME INTO EXISTING STORM DRAINS ADJACENT TO THE SITE ON FOURTH STREET NW

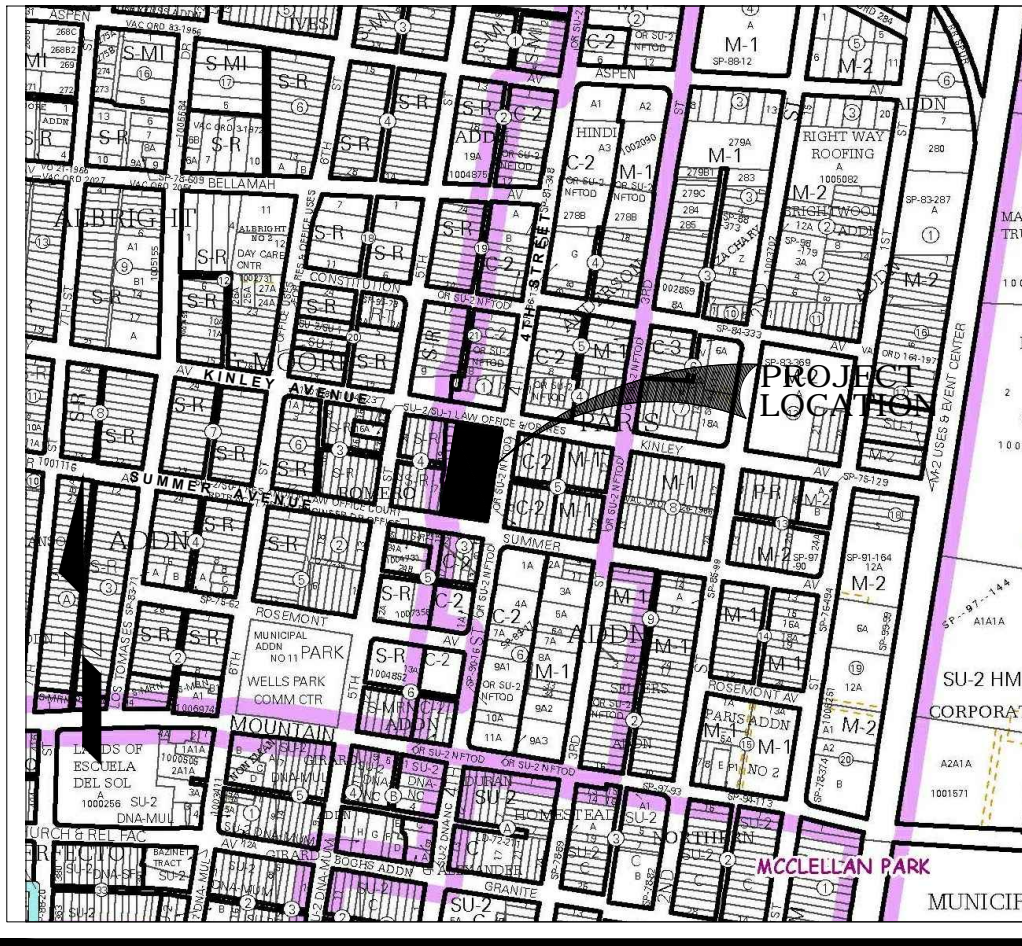
V(PROPOSED-6HR) = ((0.78 X 0.04) + ((0.78 + 1.13)/2 X 0.08) + (2.12 X 0.86))/ 12)
= 0.16AC-Ft = 7.009CF PROPOSED 100 YEAR ONSITE VOLUME INTO ONSITE INLET AND STORM DRAIN THEN INTO SAD STORM DRAIN
7. IMPACT OF THIS DEVELOPMENT ON DOWNSTREAM CAPACITY (100-YEAR, 6 HOUR STORM)
Q(DELTA) = Q(PROPOSED) - Q(EXISTING) = 4.35CFs - 4.61CFs = **0.26CFs REDUCTION IN DOWNSTREAM FLOW FROM THIS DEVELOPMENT**

V(DELTA) = V(PROPOSED) - V(EXISTING) = 7,009CF - 7,542CF = **533CF REDUCTION IN DOWNSTREAM FLOW VOLUME FROM THIS DEVELOPMENT**
8. FIRST FLUSH STORM WATER CONTROL MEASURES PER ORDINANCE O-2013016 FOR THE PURPOSED OF THE ORDINANCE THE 90TH PERCENTILE STORM EVENT IS 0.44INCHES FROM IMPERVIOUS ARES.
V(FIRST FLUSH) = 0.44" X TREATMENT "D" = (0.44"/12"/1) X 37,379SF = 1,371 CF REQUIRED TO BE DETAINED FOR FIRST FLUSH
9. PER CITY ENGINEER SINCE THIS SITE IS IN VALLEY DETAIN 0.50" RUNOFF FOR IMPERVIOUS AREA REQUIREMENT
V(0.50") = 0.50" X TREATMENT "D" = (0.50"/12"/1) X 37,379SF = 1,557CF REQUIRED TO BE DETAINED FOR VALLEY REQUIREMENT
10. DETERMINE VOLUME PROVIDED AT ELEVATION 4960.15
BASED ON COMPUTER COMPARISON VOLUME ANALYSIS OF ELEVATION 4960.15 RELATIVE TO NEW GRADES VOLUME PROVIDED = 2441CF > 1,557CF OK
PROPOSED ONSITE VOLUME MEETS 0.5" RUNOFF AND FIRST FLUSH REQUIREMENTS

FLOOD INSURANCE RATE MAP



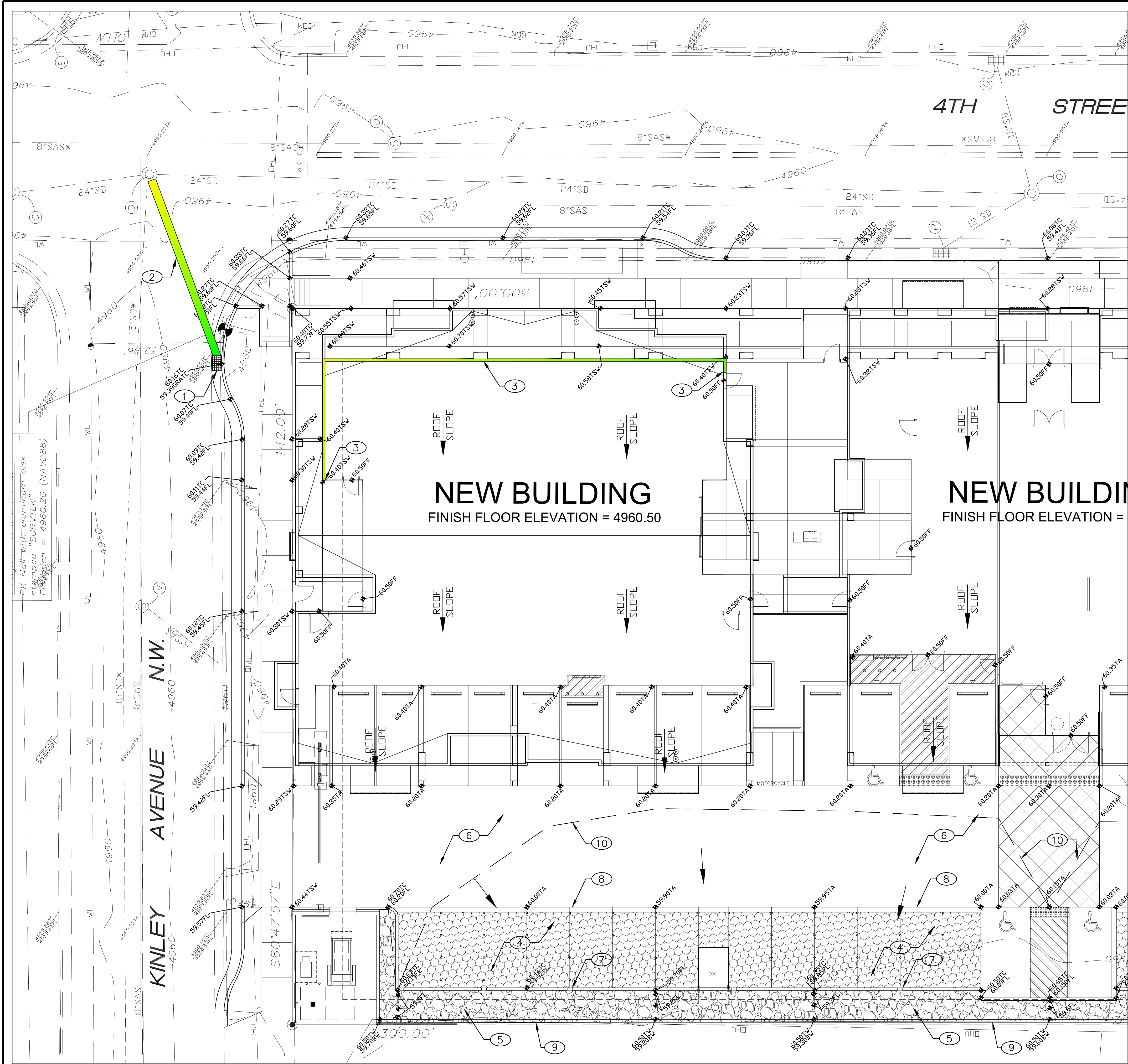
VICINITY MAP J-14



APPLIED ENGINEERING AND SURVEYING, INC. ENGINEERS AND PLANNERS <small>1600 Blair Drive NE Albuquerque, New Mexico 87112 Office: (505) 237-1466 Fax: (505) 237-1468</small>	
CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: DRAINAGE ANALYSIS CUATRO DEVELOPMENT	
Design Review Committee	City Engineer Approval
FOR INFORMATION ONLY	
City Project No.	Zone Map No.
TBD	TBD
Sheet	Of
1	5

AS BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	DATE	BENCHMARK IS AN A.C.S. MONUMENT 1988) THE STATION MARK IS A C.I.A. SURVEY CONTROL 3-1/4" ALUMINUM DISC STAMPED "17-J14 1983", SET FLUSH WITH THE TOP OF THE CONCRETE AT THE WEST SIDE OF THE INTERSECTION IN THE MEDIAN OF EIGHTH STREET N.W. AND LOMAS AVENUE N.W.		FIELD NOTES	NO.	BY	DATE
WORK STAMPED BY	DATE						
INSPECTOR'S FIELD VERIFICATION BY	DATE						
REVISIONS	DATE						
DESIGNED BY	DATE						
DRAWN BY	DATE						
CHECKED BY	DATE						



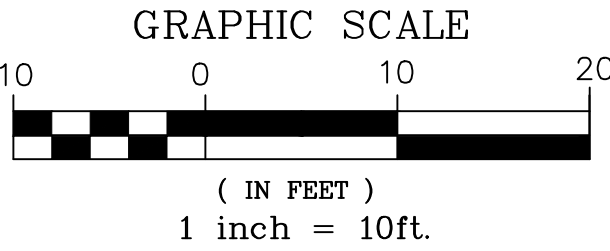
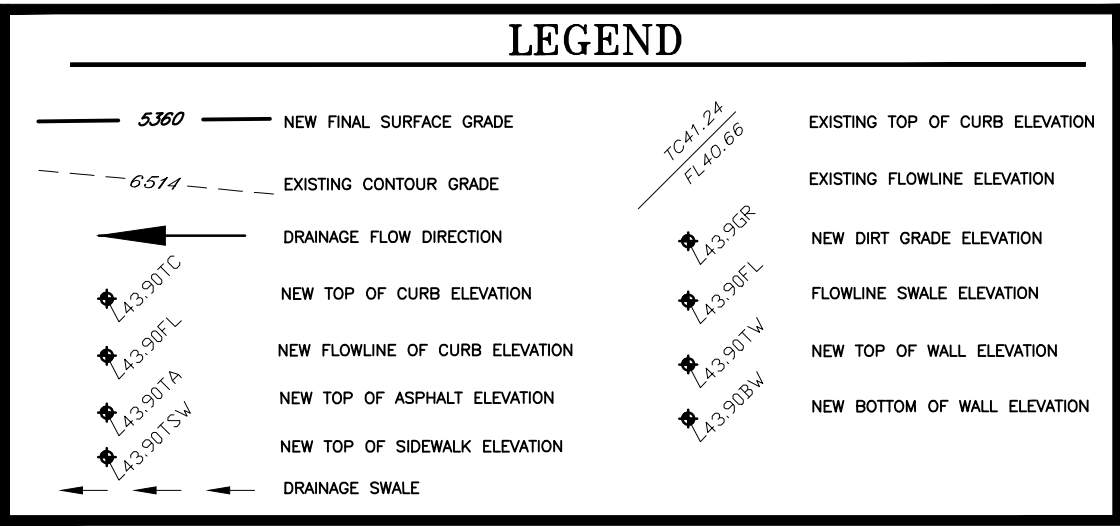


KEYED INVERT DATA

- (A) Storm Drain MH
Rim = 4960.49' (N)
Inv. = 4956.84' (S)
Inv. = 4956.69' (NE)
Inv. = 4956.74' (W)
- (B) Storm Drain Inlet
Top of Grate = 4959.52'
Inv. = 4957.6'
- (C) Storm Drain MH
Rim = 4960.30'
Inv. = 4956.38' (N)
Inv. = 4956.25' (S)
Inv. = 4956.30' (NW)
- (D) Storm Drain MH
Rim = 4960.06'
Inv. = 4956.11' (N)
Inv. = 4956.06' (S)
- (E) Storm Drain Inlet
Top of Grate = 4959.43'
Inv. = 4957.5'
- (F) Manhole
Rim = 4959.98'
Full of debris
- (G) Sanitary Sewer MH
Rim = 4959.93'
Inv. = 4952.89' (E)
- (H) Storm Drain MH
Rim = 4959.29'
Inv. = 4954.34' (W)
Inv. = 4954.29' (SW)
- (J) Storm Drain Inlet
Top of Grate = 4958.56'
Inv. = 4954.16' (NE)
- (K) Storm Drain MH
Rim = 4959.41'
Inv. = 4956.91' (SW)
Inv. = 4955.06' (NE)
Inv. = 4953.71' (E)
Inv. = 4953.66' (W)
- (L) Storm Drain MH
Rim = 4959.61'
No Access - Lid Cracked
- (M) Storm Drain Inlet
Top of Grate = 4958.85'
Inv. = 4956.35' (SE)
- (N) Storm Drain MH
Rim = 4959.93'
Inv. = 4956.13' (NE)
Inv. = 4955.93' (N)
Inv. = 4955.88' (S)
- (P) Storm Drain Inlet
Top of Grate = 4959.19' (SE)
- (Q) Storm Drain Inlet
Top of Grate = 4959.07'
Inv. = 4956.97' (SW)
- (R) Sanitary Sewer MH
Rim = 4960.52'
Inv. = 4950.42' (S)
Inv. = 4950.32' (N)
Inv. = 4950.22' (E)
Inv. = 4950.17' (W)
- (S) Sanitary Sewer MH
Rim = 4959.56'
Inv. = 4949.41' (S)
Inv. = 4949.41' (N)
Inv. = 4949.41' (E)
Inv. = 4949.41' (W)
No Lines Flowing
- (T) Sanitary Sewer MH
Rim = 4959.70'
Inv. = 4952.00' (N)
Inv. = 4949.65' (E)
Inv. = 4949.35' (E)
- (U) Sanitary Sewer MH
Rim = 4960.02'
Lid Sealed
- (V) Sanitary Sewer MH
Rim = 4960.30'
Inv. = 4955.75' (SW)
Inv. = 4952.05' (W)
- (W) Sanitary Sewer MH
Rim = 4959.95'
Inv. = 4951.31' (E)
Inv. = 4951.31' (W)
Inv. = 4951.26' (N)
Inv. = 4951.16' (S)
- (X) Sanitary Sewer MH
Rim = 4959.97'
Inv. = 4952.82' (S)

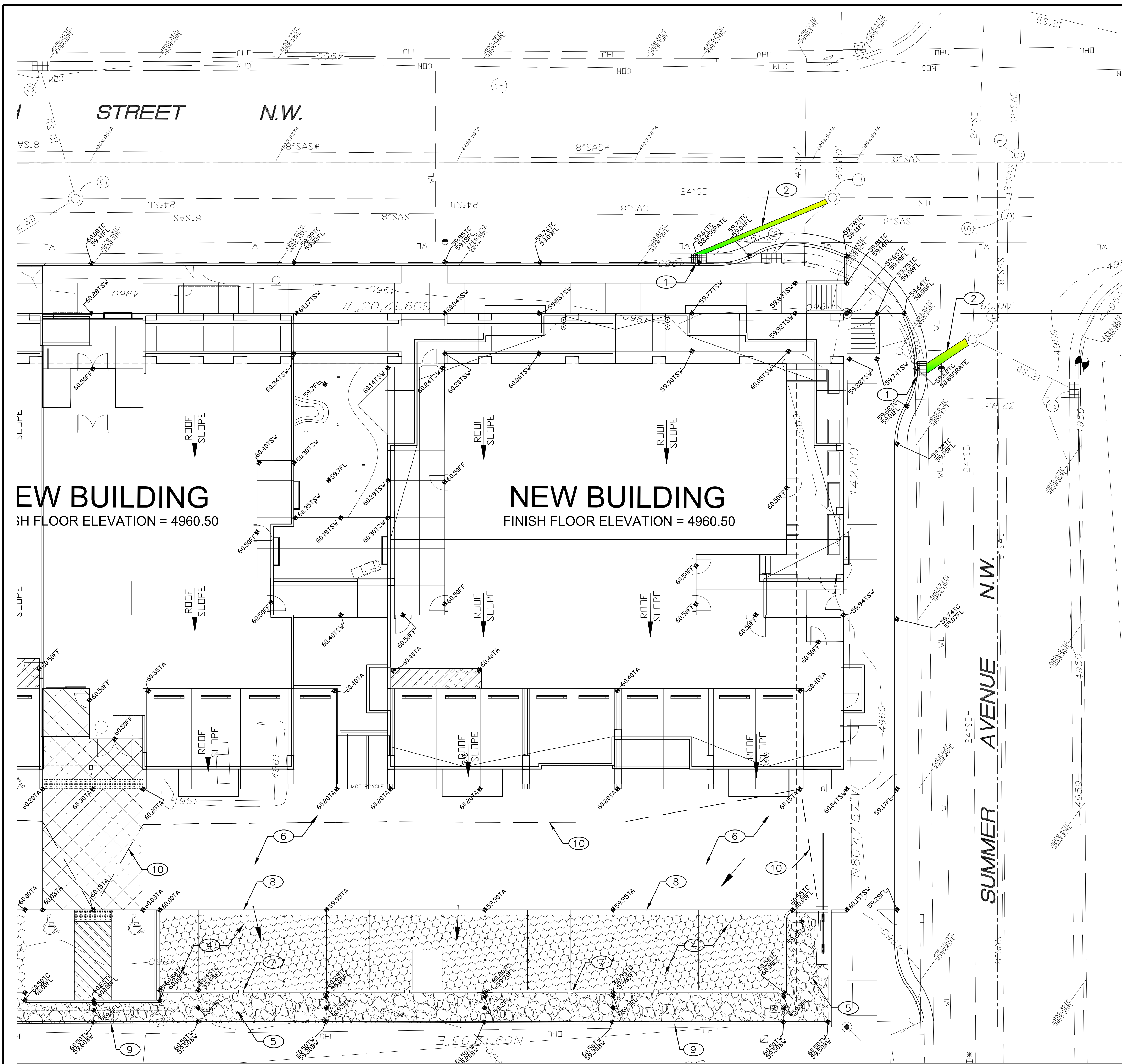
CONSTRUCTION NOTES:

- (1) CONSTRUCT SINGLE TYPE "C" INLET
- (2) INSTALL 12" STORM DRAIN.
- (3) INSTALL 6" HIGH CONCRETE STEM WALL ABOVE FINISH FLOOR GRADE AT THIS LOCATION WITH ELEVATION = 4960.90
- (4) INSTALL GEOPAVE POROUS PAVEMENT SYSTEM WITH POROUS AGGREGATE PER PRESTO GEOSYSTEMS MANUFACTURERS RECOMMENDATIONS (SEE DETAIL SHEET 5).
- (5) INSTALL 12" THICK WITH 2-4" ROUND COBBLE DRAIN FIELD.
- (6) ASPHALT PAVING, SEE SITE PLAN FOR DETAILS.
- (7) 6" CONCRETE CURB WITH 1' OPENING, SEE SITE PLAN FOR DETAILS.
- (8) CONCRETE STRIP, SEE SITE PLAN FOR DETAILS.
- (9) BLOCK WALL, SEE SITE PLAN FOR DETAILS.
- (10) WATER SURFACE ELEVATION = 4960.15 REQUIRED FOR 0.5' RUNOFF DETENTION PRIOR TO SPILLING OVER DRIVEWAY.



APPLIED ENGINEERING AND SURVEYING, INC. ENGINEERS AND PLANNERS 1600 Blair Drive, Suite 100, Albuquerque, New Mexico 87112 Office: (505) 271-1400		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: GRADING PLAN CUATRO DEVELOPMENT-NORTH HALF			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
FOR INFORMATION ONLY		Sheet	Of
City Project No.	Zone Map No.	2	5

BENCH MARKS		AS BUILT INFORMATION	
BENCHMARK IS AN A.C.S. MONUMENT 1988) THE STATION MARK IS A C.I.A. SURVEY CONTROL 3-1/4" ALUMINUM DISC STAMPED "17-J14 1983" SET FLUSH WITH THE TOP OF THE CONCRETE AT THE WEST SIDE OF THE INTERSECTION IN THE MEDIAN OF EIGHTH STREET N.W. AND LOMAS AVENUE N.W.		CONTRACTOR	DATE
NO.	DATE	INSPECTOR'S STAMPED BY	DATE
FIELD NOTES		FIELD VERIFICATION BY	DATE
ENGINEER'S SEAL		MICRO-FILM INFORMATION	
APPROVED PROFESSIONAL ENGINEER ALBERT ALVARADO 07-19-14 10848 NEW MEXICO		RECORDED BY	DATE
NO.		DATE	NO.



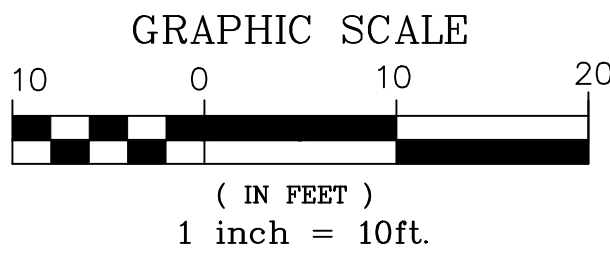
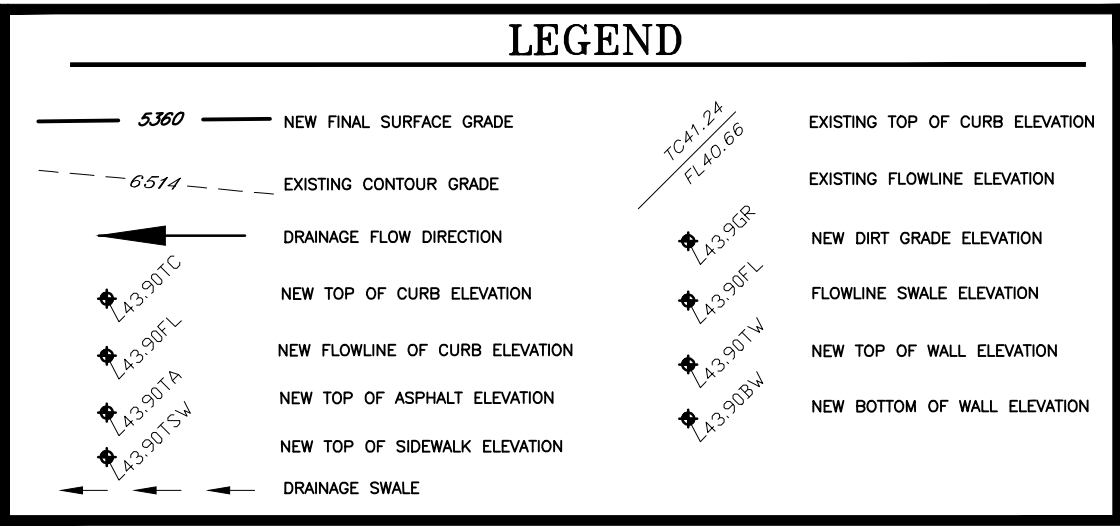
GRADING PLAN
SCALE: 1" = 10'

KEYED INVERT DATA

- A Storm Drain MH
Rim= 4960.49'
Inv.= 4956.84' (N)
Inv.= 4956.69' (S)
Inv.= 4956.74' (W)
- B Storm Drain Inlet
Top of Grate= 4959.52'
Inv.= 4957.6'
- C Storm Drain MH
Rim= 4960.30'
Inv.= 4956.38' (N)
Inv.= 4956.25' (S)
Inv.= 4956.30' (NW)
- D Storm Drain MH
Rim= 4960.06'
Inv.= 4956.11' (N)
Inv.= 4956.06' (S)
- E Storm Drain Inlet
Top of Grate= 4959.43'
Inv.= 4957.5'
- F Manhole
Rim= 4959.98'
Full of debris
- G Sanitary Sewer MH
Rim= 4959.93'
Inv.= 4952.89' (E)
- H Storm Drain MH
Rim= 4959.29'
Inv.= 4954.24' (W)
Inv.= 4954.29' (SW)
- I Storm Drain Inlet
Top of Grate= 4958.56'
Inv.= 4954.16' (NE)
- J Storm Drain MH
Rim= 4959.41'
Inv.= 4956.91' (SW)
Inv.= 4955.06' (NE)
Inv.= 4953.71' (E)
Inv.= 4953.66' (W)
- K Storm Drain MH
Rim= 4959.93'
Inv.= 4956.13' (NW)
Inv.= 4956.13' (NE)
Inv.= 4955.93' (N)
Inv.= 4955.88' (S)
- L Storm Drain Inlet
Top of Grate= 4959.43'
Inv.= 4957.5'
- M Storm Drain Inlet
Top of Grate= 4958.85'
Inv.= 4956.35' (SE)
- N Storm Drain MH
Rim= 4959.93'
Inv.= 4956.13' (NW)
Inv.= 4956.13' (NE)
Inv.= 4955.93' (N)
Inv.= 4955.88' (S)
- O Storm Drain Inlet
Top of Grate= 4959.19'
Inv.= 4957.29' (SE)
- P Storm Drain Inlet
Top of Grate= 4959.07'
Inv.= 4956.97' (SW)
- Q Sanitary Sewer MH
Rim= 4960.52'
Inv.= 4950.42' (S)
Inv.= 4950.32' (N)
Inv.= 4950.22' (E)
Inv.= 4950.17' (W)
No Lines Flowing
- R Sanitary Sewer MH
Rim= 4959.56'
Inv.= 4949.41' (S)
Inv.= 4949.41' (N)
Inv.= 4949.41' (E)
Inv.= 4949.41' (W)
No Lines Flowing
- S Sanitary Sewer MH
Rim= 4959.70'
Inv.= 4949.41' (N)
Inv.= 4949.41' (E)
Inv.= 4949.41' (W)
Inv.= 4949.35' (E)
- T Sanitary Sewer MH
Rim= 4960.02'
Lid Sealed
- U Sanitary Sewer MH
Rim= 4960.30'
Inv.= 4955.75' (SW)
Inv.= 4952.05' (W)
- V Sanitary Sewer MH
Rim= 4959.95'
Inv.= 4951.31' (E)
Inv.= 4951.31' (W)
Inv.= 4951.26' (N)
Inv.= 4951.16' (S)
- W Sanitary Sewer MH
Rim= 4959.97'
Inv.= 4952.82' (S)
- X Sanitary Sewer MH
Rim= 4959.97'
Inv.= 4952.82' (S)

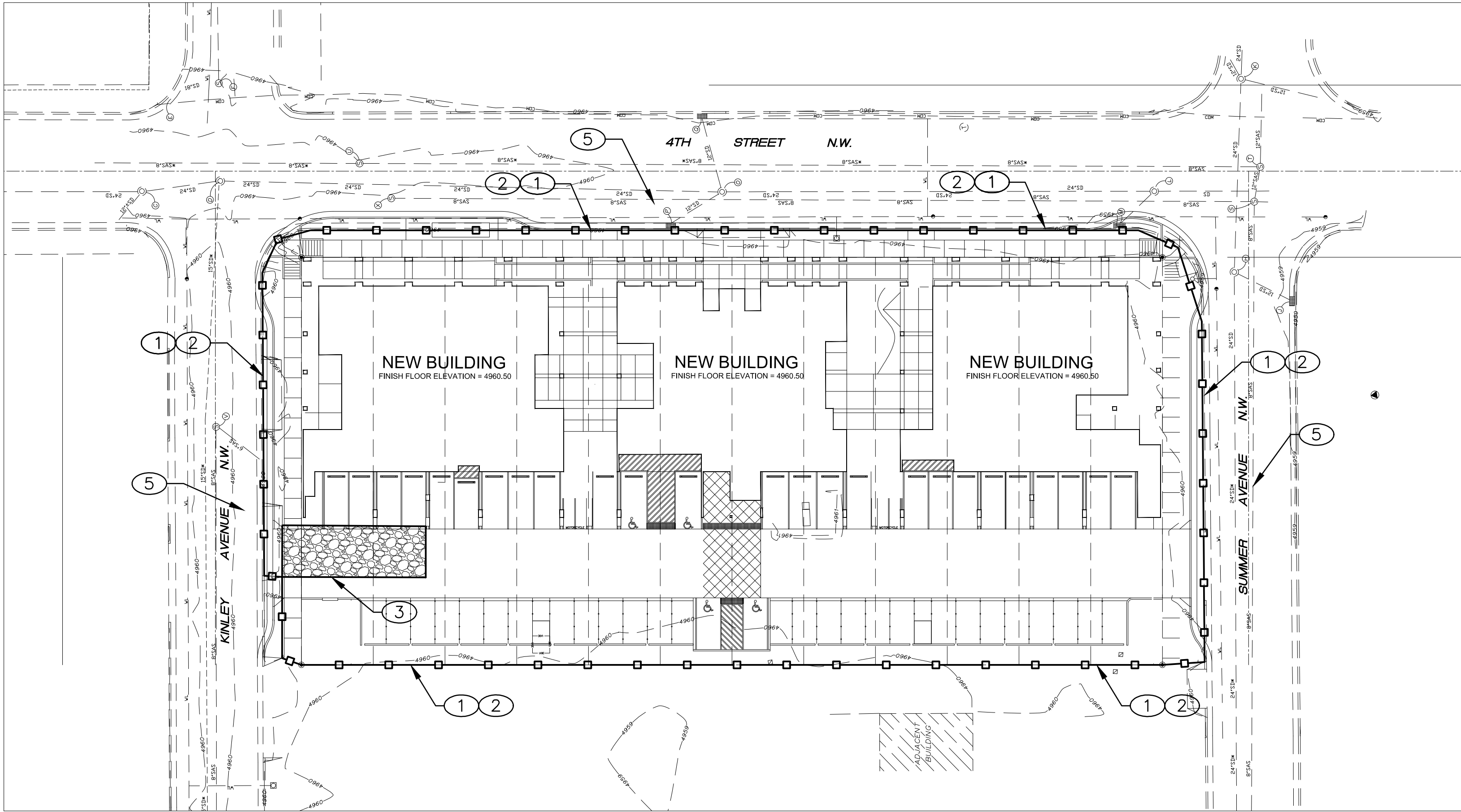
CONSTRUCTION NOTES:

- 1 CONSTRUCT SINGLE TYPE 'C' INLET
- 2 INSTALL 12" STORM DRAIN.
- 3 NOT USED.
- 4 INSTALL GEOPAVE POROUS PAVEMENT SYSTEM WITH POROUS AGGREGATE PER PRESTO GEOSYSTEMS MANUFACTURERS RECOMMENDATIONS (SEE DETAIL SHEET 5).
- 5 INSTALL 12" THICK WITH 2-4" ROUND COBBLE DRAIN FIELD.
- 6 ASPHALT PAVING, SEE SITE PLAN FOR DETAILS.
- 7 6" CONCRETE CURB WITH 1' OPENING, SEE SITE PLAN FOR DETAILS.
- 8 CONCRETE STRIP, SEE SITE PLAN FOR DETAILS.
- 9 BLOCK WALL, SEE SITE PLAN FOR DETAILS.
- 10 WATER SURFACE ELEVATION = 4960.15 REQUIRED FOR 0.5' RUNOFF DETENTION PRIOR TO SPILLING OVER DRIVEWAY.



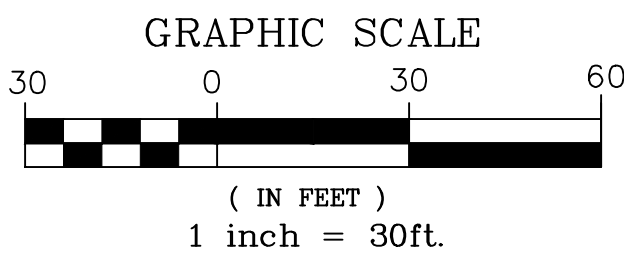
APPLIED ENGINEERING AND SURVEYING, INC. ENGINEERS AND PLANNERS 1602 Blair Drive, Suite 100 Albuquerque, New Mexico 87112 Office: (505) 271-1400		CITY OF ALBUQUERQUE PUBLIC WORKS DEPARTMENT ENGINEERING DEVELOPMENT GROUP	
TITLE: GRADING PLAN CUATRO DEVELOPMENT-SOUTH HALF			
Design Review Committee	City Engineer Approval	Mo./Day/Yr.	Mo./Day/Yr.
FOR INFORMATION ONLY		Sheet	Of
City Project No.	Zone Map No.	3	5

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS-BUILT INFORMATION	
[Professional Seal]		NO.	BY	DATE	CONTRACTOR	DATE	DATE
REVISIONS		NO.		BY	DATE	DATE	DATE
DESIGN		NO.		BY	DATE	DATE	DATE
DRAWN BY		NO.		BY	DATE	DATE	DATE
CHECKED BY		NO.		BY	DATE	DATE	DATE



EROSION CONTROL PLAN

SCALE: 1" = 30'

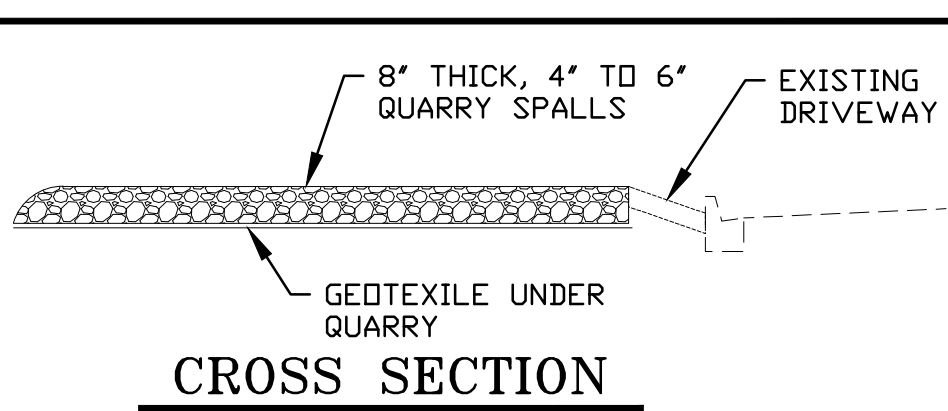


UTILITY NOTE:

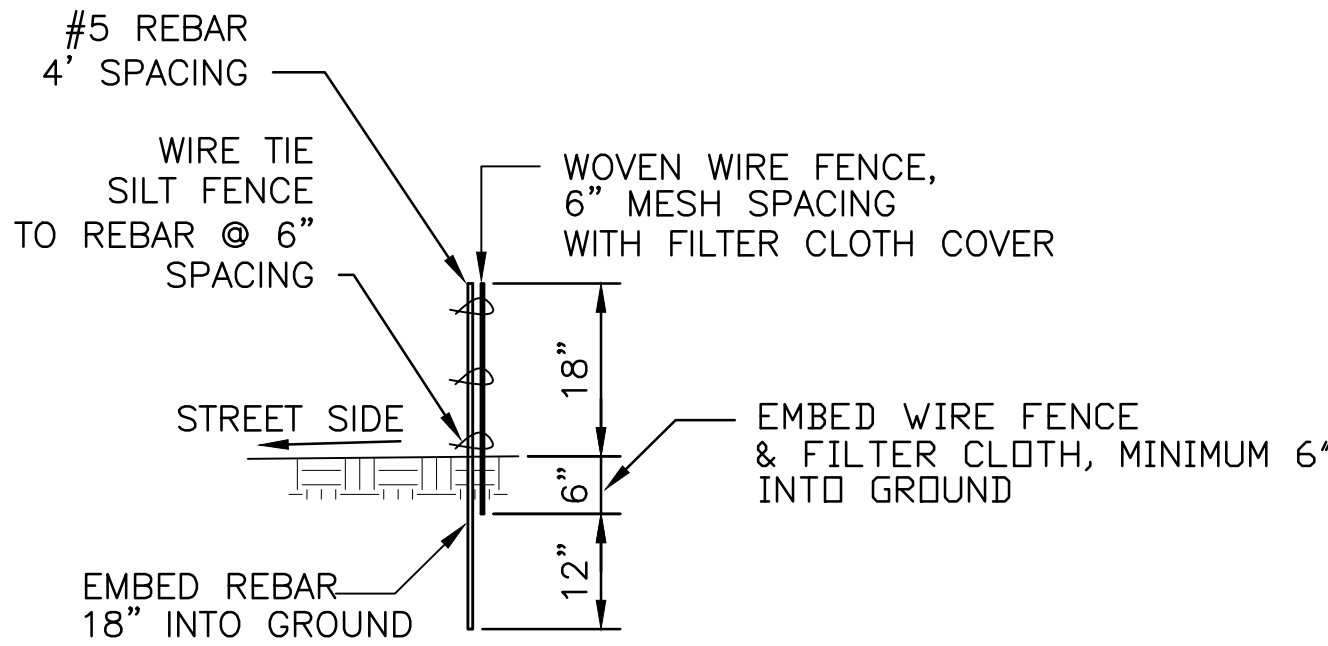
IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THE DRAWING, THEY ARE SHOWN IN APPROXIMATE MANNER ONLY. UTILITY LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OR PIPELINE COMPANY, THE OWNER, OR BY OTHERS. THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES.

THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE OR TYPE OF EXISTING ABOVE AN UNDERGROUND UTILITIES, OR EXISTING PIPELINES. THE ENGINEER MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM HIMSELF OF THE LOCATION OF ANY EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES, IN AND 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 HIS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING ABOVE AND UNDERGROUND UTILITIES, AND EXISTING PIPELINES. THE CONTRACT SHALL COMPLY WITH STATE STATUTES PERTAINING TO THE LOCATION OF THESE LINES IN PLANNING AND CONDUCTING EXCAVATION WORK.

VICINITY MAP J-14



STABILIZED CONSTRUCTION
ENTRANCE/EXIT PLAN VIEW



SILT PERIMETER FENCE DETAIL

SCALE: N.T.S.

INSTALL SILT FENCE ALONG THE BACK OF CURB ALONG FOURTH STREET, SUMMER AVENUE, KINLEY AVENUE AND ALONG THE WEST BOUNDARY CHAIN LINK FENCE LINE TO KEEP SEDIMENT FROM WASHING OUT INTO THE EXISTING STREETS AND ADJACENT ALLEY AND PRIVATE PROPERTIES. IF THE FABRIC BECOMES CLOGGED, IT SHOULD BE CLEANED OR, IF NECESSARY, REPLACED. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE FENCE..

CONSTRUCTION NOTES:

- PROJECT BOUNDARY AND LIMITS OF CONSTRUCTION DISTURBANCE.
- LIMITS OF SEDIMENT PERIMETER FENCE INSTALLATION.
- CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE/EXIT. WHEN SEDIMENT HAS SUBSTANTIALLY CLOGGED THE VOID AREA BETWEEN THE ROCKS, THE AGGREGATE MAT MUST BE WASHED DOWN OR REPLACED. PERIODIC RE-GRADING AND TOP DRESSING WITH ADDITIONAL STONE MUST BE DONE TO KEEP THE EFFICIENCY OF THE ENTRANCE FROM DIMINISHING.
- CONSTRUCT CONCRETE WASHOUT AREA 8'X8'X3'DEEP. THE CONCRETE WASHOUT AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASH. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- CONTRACTOR SHALL CLEAN DIRT/DEBRIS ON SUMMER AVENUE, KINLEY AVENUE AND 4TH STREET AT THE END OF EACH DAY.

SWPPP GENERAL NOTES:

- THE CONTRACTOR SHALL BE IN COMPLIANCE WITH THIS EROSION AND SEDIMENT CONTROL PLAN AT A MINIMUM ALONG WITH COMPLIANCE OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM MANUAL STORM WATER MANAGEMENT GUIDELINES FOR CONSTRUCTION AND INDUSTRIAL ACTIVITIES REVISION 2, DATED AUGUST 2012
- ONCE A SWPPP HAS BEEN APPROVED AND AN NOTICE OF INTENT (NOI) HAS BEEN FILED AND ACKNOWLED THE CONTRACTOR SHALL IMPLEMENT ALL BMPs SHOWN (SEDIMENT PERIMETER FENCE, STABILIZED CONSTRUCTION ENTRANCE/EXIT AND CONCRETE WASHOUT AREA SHALL BE CONSTRUCTED BEFORE ANY GRADING ACTIVITIES BEGIN ON THIS PROJECT SITE.
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- A COPY OF THE SWPPP, A COPY OF THE PERMIT, THE NOI, AND ACKNOWLEDGEMENT LETTER MUST BE KEPT AT THE CONSTRUCTION SITE FROM THE TIME CONSTRUCTION BEGINS UNTIL THE SITE IS FINALLY STABILIZED.
- ONCE CONSTRUCTION IS COMPLETE THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING/VEGETATION AFTER A PERIOD OF 21 DAYS OR MORE.

TOTAL SITE ACREAGE = 0.98AC
TOTAL DISTURBED ACREAGE = 0.98AC

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TBD	TBD	4	5

