

PUBLIC IMPROVEMENT PLANS
FOR
INNOVA PLAZA

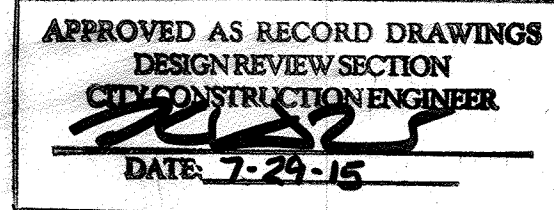
401 EUBANK BLVD SE
ALBUQUERQUE, NEW MEXICO
DECEMBER 2014

PREPARED FOR:
GLAD LLC
39 CANYON RIDGE DR
SANDIA PARK, NM 87047

PREPARED BY:
ISAACSON & ARFMAN, P.A.
128 MONROE ST. NE
ALBUQUERQUE, NM 87108

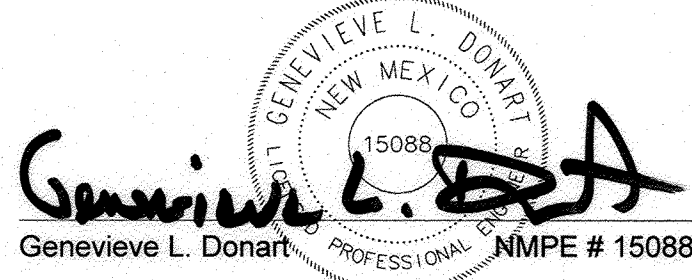
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CERTIFICATE OF SUBSTANTIAL COMPLIANCE ON PLANS

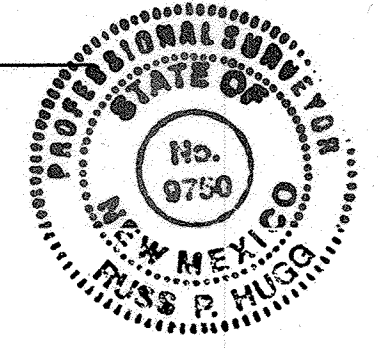
I, Genevieve L. Donart of the firm of Isaacson & Arfman, P.A., a Registered Professional Engineer in the State of New Mexico, do hereby certify, to the best of my knowledge and belief, that the infrastructure installed as part of this project has been inspected by me or by a qualified person under my direct supervision and has been constructed in accordance with the plans and specifications approved by the City Engineer and that the original design intent of the approved plans has been met, except as noted by me on the as-built construction drawings. This Certification is based on site inspections by me or personnel under my direction and survey information provided by Russ Hugg of the firm Surv-Tek, Inc., NMPS #9750.



SURVEYORS CERTIFICATION

I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that the as-built information shown hereon is the result of an actual field survey performed by me or under my direct supervision and that the same is true and correct to the best of my knowledge and belief.

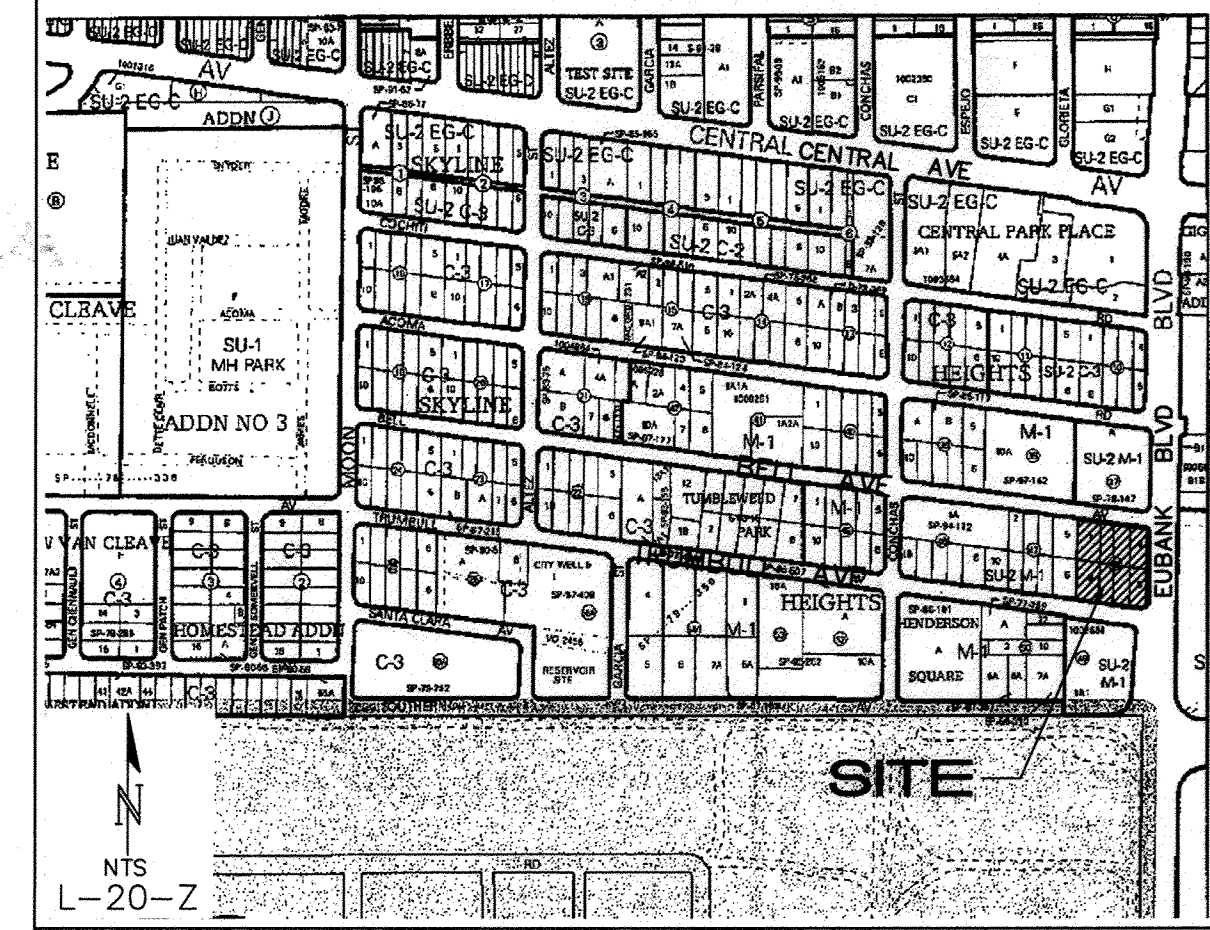
Russ P. Hugg
NMPS No. 9750
3/20, 2015



GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, CONSTRUCTION 1986 EDITION AS AMENDED WITH UPDATE #8 INCLUDING AMENDMENT #1.
- 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.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE & VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM DELAY.
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, NM 811, FOR LOCATION OF EXISTING UTILITIES.
- CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN A MANNER WHICH WILL MINIMIZE INTERFERENCE WITH LOCAL TRAFFIC. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS OF ANY PUBLIC BODY HAVING JURISDICTION FOR THE SAFETY OF PERSONS OR PROPERTY, AND TO PROTECT THEM FROM DAMAGE, INJURY, OR LOSS. CONTRACTOR SHALL ERECT AND MAINTAIN, AS REQUIRED BY THE CONDITIONS AND PROGRESS OF THE WORK, ALL NECESSARY SAFEGUARDS FOR SAFETY CONTINUOUSLY AND NOT LIMITED TO NORMAL WORKING HOURS, THROUGHOUT THE DURATION OF THE PROJECT. CONTRACTOR SHALL ADHERE TO SECTION 19 OF THE GENERAL CONDITIONS OF THE CITY OF ALBUQUERQUE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986, AS AMENDED WITH UPDATE #8.
- THE CONTRACTOR AGREES THAT HE SHALL ASSUME THE SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD HARMLESS THE OWNER & ENGINEER FROM ANY AND ALL LIABILITY REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR ENGINEER.
- TRAFFIC CONTROL: SEVEN (7) WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE CONSTRUCTION COORDINATION DIVISION A DETAILED CONSTRUCTION SCHEDULE. TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN A BARRICADING PERMIT FROM THE CONSTRUCTION COORDINATION DIVISION. CONTRACTOR SHALL NOTIFY CONSTRUCTION COORDINATION ENGINEER (924-3400) PRIOR TO OCCUPYING AN INTERSECTION. SEE SECTION 19 OF THE SPECIFICATIONS. ALL STREET STRIPING ALTERED OR DESTROYED SHALL BE REPAID WITH PRE-FORMED THERMOPLASTIC REFLECTORIZED PAVEMENT MARKINGS BY CONTRACTOR TO LOCATION AS EXISTING OR AS SHOWN IN THIS PLAN SET.
- WHEN ABUTTING EXISTING PAVEMENT TO NEW, SAWCUT EXISTING PAVEMENT TO A STRAIGHT EDGE AND AT A RIGHT ANGLE, OR AS APPROVED BY THE FIELD ENGINEER. REMOVAL OF BROKEN OR CRACKED PAVEMENT WILL ALSO BE REQUIRED.
- EXISTING CURB AND GUTTER NOT TO BE REMOVED UNDER THE CONTRACT WHICH IS DAMAGED OR DISPLACED BY THE CONTRACTOR SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR AT HIS EXPENSE PER COA STD DWG #2415A.
- THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY OR PRIVATE ROADWAY EASEMENTS SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET OR INTO ANY PUBLIC DRAINAGE FACILITY.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER NOT LESS THAN SEVEN (7) DAYS PRIOR TO STARTING WORK IN ORDER THAT THE CITY SURVEYOR MAY TAKE

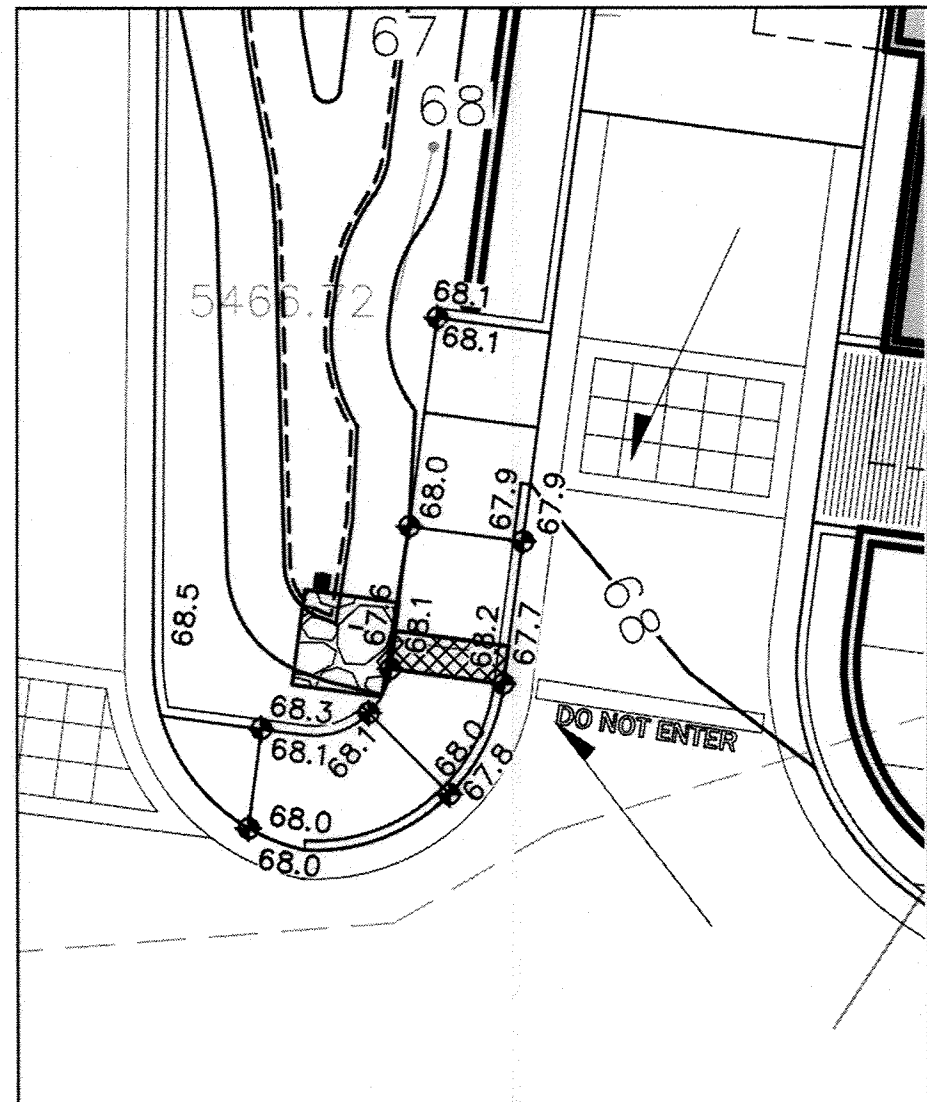
RECORD
DRAWING



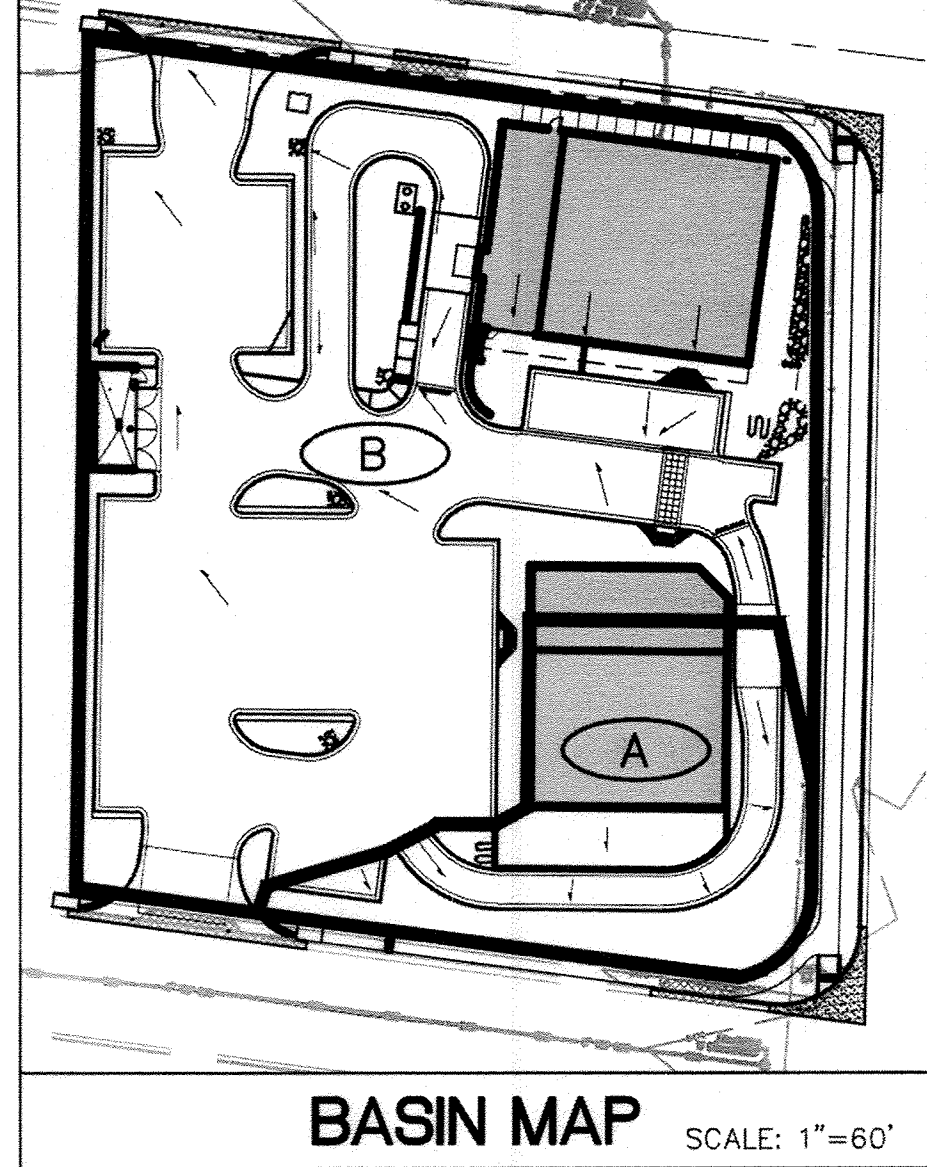
- NECESSARY MEASURES TO INSURE THE PRESERVATION OF SURVEY MONUMENTS. CONTRACTOR SHALL NOT DISTURB PERMANENT SURVEY MONUMENTS WITHOUT THE CONSENT OF THE CITY SURVEYOR AND SHALL NOTIFY THE CITY SURVEYOR AND BEAR THE EXPENSE OF REPLACING ANY THAT MAY BE DISTURBED WITHOUT PERMISSION. REPLACEMENT SHALL BE DONE ONLY BY THE CITY SURVEYOR. WHEN A CHANGE IS MADE IN THE FINISHED ELEVATIONS OF THE PAVEMENT OF ANY ROADWAY IN WHICH A PERMANENT SURVEY MONUMENT IS LOCATED, CONTRACTOR SHALL, AT HIS OWN EXPENSE, ADJUST THE MONUMENT COVER TO THE NEW GRADE, UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 4.4 OF THE GENERAL CONDITIONS OF THE STANDARD SPECIFICATIONS UPDATE #8.
- PNM WILL PROVIDE AT NO COST TO THE CITY OR THE CONTRACTOR THE REQUIRED PERSONNEL FOR INSPECTION OR OBSERVATION DEEMED NECESSARY BY PNM WHILE THE CONTRACTOR IS EXPOSING PNM'S CABLES. HOWEVER, THE CONTRACTOR SHALL BE CHARGED THE TOTAL COST ASSOCIATED WITH REPAIRS TO ANY DAMAGED CABLES OR FOR ANY COST ASSOCIATED WITH SUPPORTING OR RELOCATING THE POLES AND CABLES DURING CONSTRUCTION.
 - WARNING--EXISTING UTILITY LINE LOCATIONS ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. THE LOCATION OF ANY SUCH EXISTING LINES IS BASED UPON INFORMATION PROVIDED BY THE UTILITY COMPANY, THE OWNER, OR BY OTHERS, AND 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 UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY 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. THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES, IN PLANNING AND CONDUCTING EXCAVATION, WHETHER BY CALLING OR NOTIFYING THE UTILITIES, COMPLYING WITH "BLUE STAKES" PROCEDURES, OR OTHERWISE.
 - ANY WORK OCCURRING WITHIN A FULLY DEVELOPED ARTERIAL ROADWAY REQUIRES 24 HR. CONSTRUCTION - AS ALLOWED BY THE CITY.
 - ALL EXCAVATION, TRENCHING AND SHORING ACTIVITIES MUST BE ACCOMPLISHED IN ACCORDANCE WITH OSHA 29CFR 1926.650 SUBPART
 - CONTRACTOR SHALL MAINTAIN A GRAFFITI-FREE WORK SITE. CONTRACTOR SHALL PROMPTLY REMOVE ANY AND ALL GRAFFITI FROM EQUIPMENT, WHETHER PERMANENT OR TEMPORARY.
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR DISPOSING OF ALL DEBRIS, INCLUDING, BUT NOT LIMITED TO HAZARDOUS WASTE AT DISPOSAL SITES APPROVED BY GOVERNMENTAL AGENCIES REGULATING THE DISPOSAL OF SUCH MATERIALS.
 - TACK COAT FOR SURFACE COURSE REQUIREMENTS WILL BE DETERMINED BY THE ENGINEER.
 - PERMANENT PAVEMENT STRIPING AND MARKINGS WILL BE PLACED BY THE CONTRACTOR. THE ROAD SHALL NOT BE OPENED TO THE TRAFFIC UNTIL IT IS STRIPED. ALL STRIPING, PAVEMENT MARKINGS INCLUDING CROSSWALKS, ARROWS AND LINE MARKINGS ARE TO BE CONSTRUCTED OF PREFORMED THERMOPLASTIC IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
 - ELECTRONIC MARKING SPHERES (EMS) WILL BE PLACED ACCORDING TO SECTION 170 OF THE CITY OF ALBUQUERQUE SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986 EDITION AS REVISED THROUGH UPDATE #8 INCLUDING AMENDMENT #1.
 - ALL WATER VALVE BOXES AND MANHOLES IN THE STREET CONSTRUCTION ARE TO BE ADJUSTED TO FINISH GRADE AND WILL BE MEASURED AND PAID PER EACH.
 - THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE. WORK REQUIRING SHUTOFF OF FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT http://www.abcwua.org/Water_Shut_off_and_Turn_on_Procedures.aspx
 - CONTRACTOR SHALL SUPPORT ALL EXISTING UNDERGROUND UTILITY LINES WHICH BECOME EXPOSED DURING CONSTRUCTION. PAYMENT FOR SUPPORTING WORK SHALL BE INCIDENTAL TO WATERLINE AND/OR SEWER LINE COSTS.
 - CONTRACTOR SHALL ASSIST THE ENGINEER/INSPECTOR IN THE RECORDING OF DATA ON ALL UTILITY LINES AND ACCESSORIES AS REQUIRED BY THE CITY OF ALBUQUERQUE FOR THE PREPARATION OF RECORD DRAWINGS. CONTRACTOR SHALL NOT COVER UTILITY LINES AND ACCESSORIES UNTIL ALL DATA HAS BEEN RECORDED.
 - CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL CONSTRUCTION SIGNALING UNTIL PROJECT HAS BEEN ACCEPTED BY THE CITY.
 - THE CONTRACTOR SHALL NOTIFY THE ALBUQUERQUE TRAFFIC ENGINEERING DIVISION THRU DRC CHAIR THREE (3) WORKING DAYS IN ADVANCE OF ANY WORK THAT REMOVES, RELOCATES, OR REINSTALLS ANY EXISTING REGULATORY SIGNS.
 - RCP PIPE JOINTS SHALL BE INSTALLED SO THAT THE JOINT GAP AT THE HOME POSITION SHALL CONFORM TO THE APPROVED MANUFACTURER'S RECOMMENDATIONS. MANUFACTURER'S RECOMMENDED JOINT GAP TOLERANCES FOR EACH PIPE SIZE AND TYPE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF PIPE. RCP JOINTS SHALL NOT BE GROUDED UNLESS DIRECTED BY THE ENGINEER AFTER CITY APPROVAL.
 - IF A PAVEMENT DROP-OFF IS CREATED DURING CONSTRUCTION, THE CONTRACTOR SHALL INITIATE PROTECTIVE MEASURES TO PREVENT ABRUPT PAVEMENT CHANGES. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
 - CONTRACTOR SHALL REPLACE IN KIND ANY EXISTING SIGNAGE, STRIPING OR ANY OTHER PAVEMENT MARKINGS IMPACTED BY THE WORK. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION.
 - THE CONTRACTOR SHALL MAINTAIN EXISTING PEDESTRIAN AND ADA PATHWAYS DURING CONSTRUCTION OR PROVIDE AN ALTERNATE ROUTE AND PROVIDE "SIDEWALK CLOSED" SIGNAGE.
 - CONTRACTOR SHALL REPAIR OR REPLACE DISTURBED UTILITIES IMMEDIATELY AND WITHOUT DELAY.

REV.	SHEETS	CITY ENGINEER	DATE	USER	DEPARTMENT	DATE	USER	DEPARTMENT	DATE
ENGINEERS STAMP & SIGNATURE		APPROVALS		ENGINEER		DATE		*****	
		DRC Chairman		H. Woodfall		1-30-15		APPROVED FOR CONSTRUCTION	
		Transportation		John W. W.		12/23/14			
		Water/Wastewater		Krisley Adams		12/23/14			
		Hydrology		J. H. H.		12/23/14			
		Constr. Mngmt.		J. H. H.		12/23/14			
Constr. Coord.									
City Project No.				638282				Sheet 1 Of 9	

DRB NO. 1010140
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2055 CC-101.dwg Dec 15, 2014

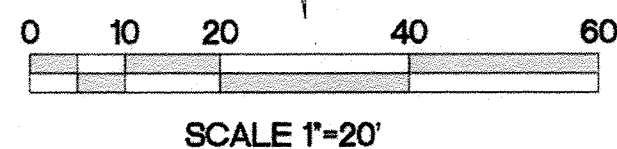
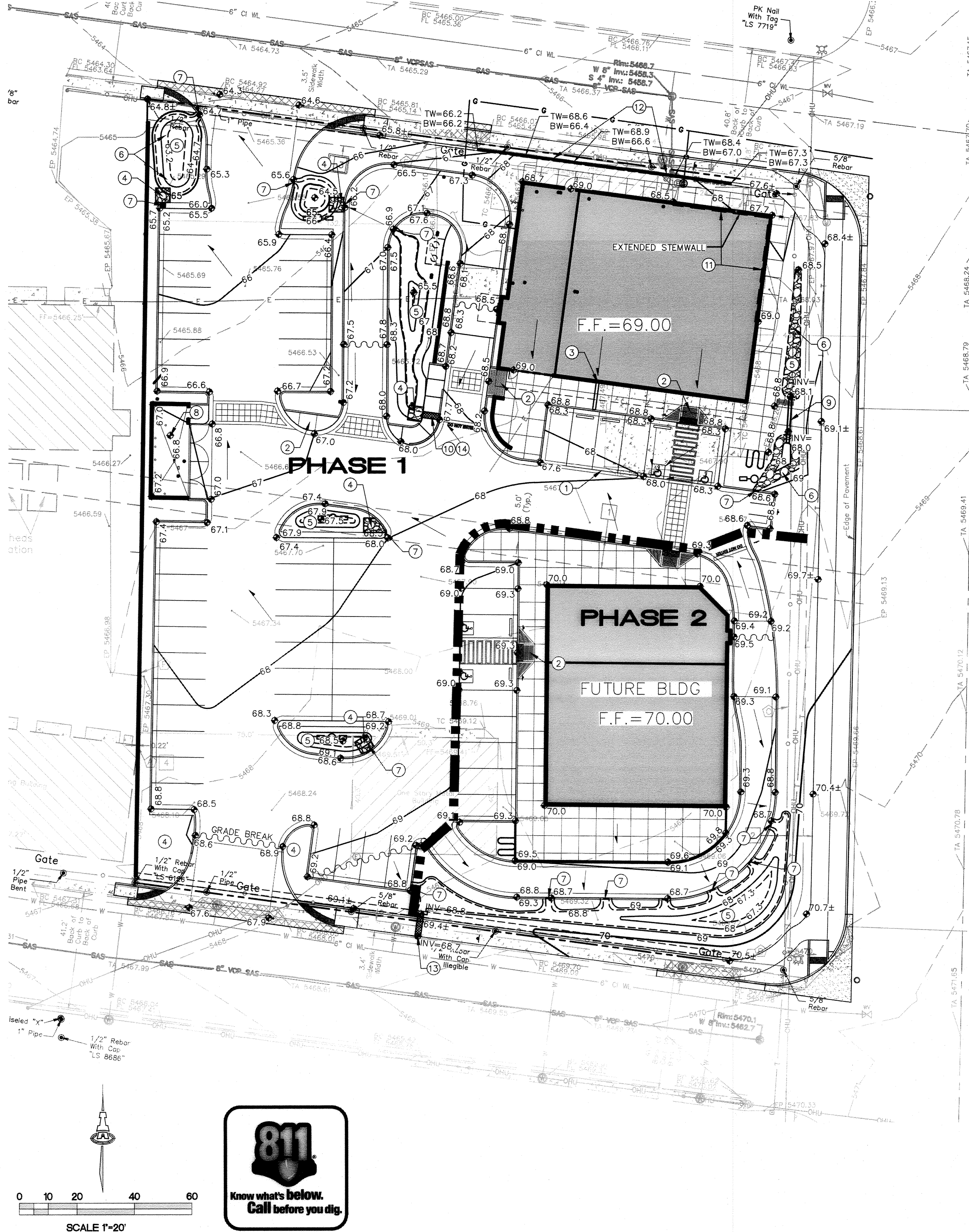


DETAIL "A"

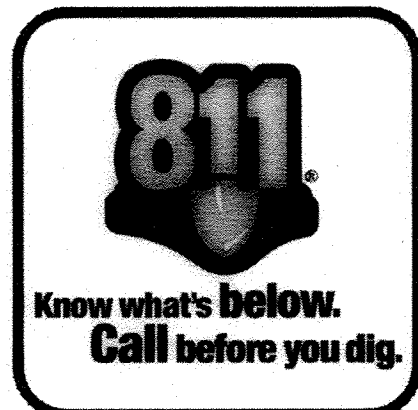


BASIN MAP

SCALE: 1"=60'



SCALE 1"=20'



KEYED NOTES

1. CONCRETE ALLEY GUTTER PER DETAIL ON SHEET CG-501.
2. HANDICAP RAMP PER ARCHITECTURAL SITE PLAN.
3. TRENCH DRAIN THROUGH SIDEWALK PER DETAIL ON SHEET CG-501. ADJUST LOCATION AS NECESSARY TO MATCH ROOF DRAIN.
4. 5'X5'X12" THICK FRACTURED FACE ROCK, AT DOWNSTREAM SIDE OF CURB CUT/SIDEWALK CULVERT. INSTALL OVER GEOTEX 501 NON-WOVEN GEO-TEXTILE. VARY ROCK SIZE FROM 4" TO 8" DIA. (6" MEDIAN.) TOP OF ROCK ELEVATIONS MUST MATCH PROPOSED GRADE TO CONVEY WATER AT DISCHARGE POINTS.
5. WATER HARVESTING AREA TO TREAT "FIRST FLUSH". INSTALL PER GRADES SHOWN.
6. 12" THICK FRACTURED FACE ROCK, ON SIDE SLOPES OF WATER HARVESTING POND OVER GEOTEX 501 NON-WOVEN GEO-TEXTILE. VARY ROCK SIZE FROM 4" TO 8" DIA. (6" MEDIAN.) TOP OF ROCK ELEVATIONS MUST MATCH PROPOSED GRADE TO CONVEY WATER AT DISCHARGE POINTS.
7. 2' WIDE CURB OPENING PER DETAIL ON SHEET CG-501.
8. GRADE CONCRETE DUMPSTER PAD TOWARDS DRAIN.
9. 2-4" PVC PIPES THROUGH SIDEWALK PER DETAIL ON SHEET CG-501.
10. 2' WIDE SIDEWALK CULVERT PER COA STD DWG #2236.
11. EXTENDED STEMWALL.
12. RETAINING WALL.
13. 2' WIDE SIDEWALK CULVERT IN RIGHT-OF-WAY TO BE INSTALLED AND INSPECTED AS PART OF WORK ORDER PERMIT.
14. SEE DETAIL "A" ON THIS SHEET.

CALCULATIONS

CALCULATIONS: Innova Plaza :
Based on Drainage Design Criteria for City of Albuquerque
Section 22.2, DPM, Vol 2, dated Jan., 1993
ON-SITE CALCULATIONS: 100-YEAR, 6-HOUR STORM
AREA OF SITE: 62108.63 SF = 1.4 AC.

HISTORIC FLOWS:	
Treatment	%
Area A	0
Area B	0
Area C	46581.473
Area D	15527.158
TOTAL	62108.63

DEVELOPED FLOWS:		EXCESS PRECIP:	
Treatment	%	Precip. Zon	
Area A	0	EA = 0.66	
Area B	3105	EB = 0.92	
Area C	6211	EC = 1.29	
Area D	52792	ED = 2.36	
TOTAL	62108.63		

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)
Weighted E = $\frac{E_A A_A + E_B A_B + E_C A_C + E_D A_D}{A_A + A_B + A_C + A_D}$

Historic = 1.56 in. Developed E = 2.18 in.

On-Site Volume of Runoff: $V_{360} = E^*A / 12$

Historic = 8061 CF Developed V = 11288 CF

On-Site Peak Discharge Rate: $Q_p = \frac{Q_{pA} A_A + Q_{pB} A_B + Q_{pC} A_C + Q_{pD} A_D}{43,560}$

For Precipitation 1.3
 $Q_{pA} = 1.87$ $Q_{pC} = 3.45$
 $Q_{pB} = 2.60$ $Q_{pD} = 5.02$

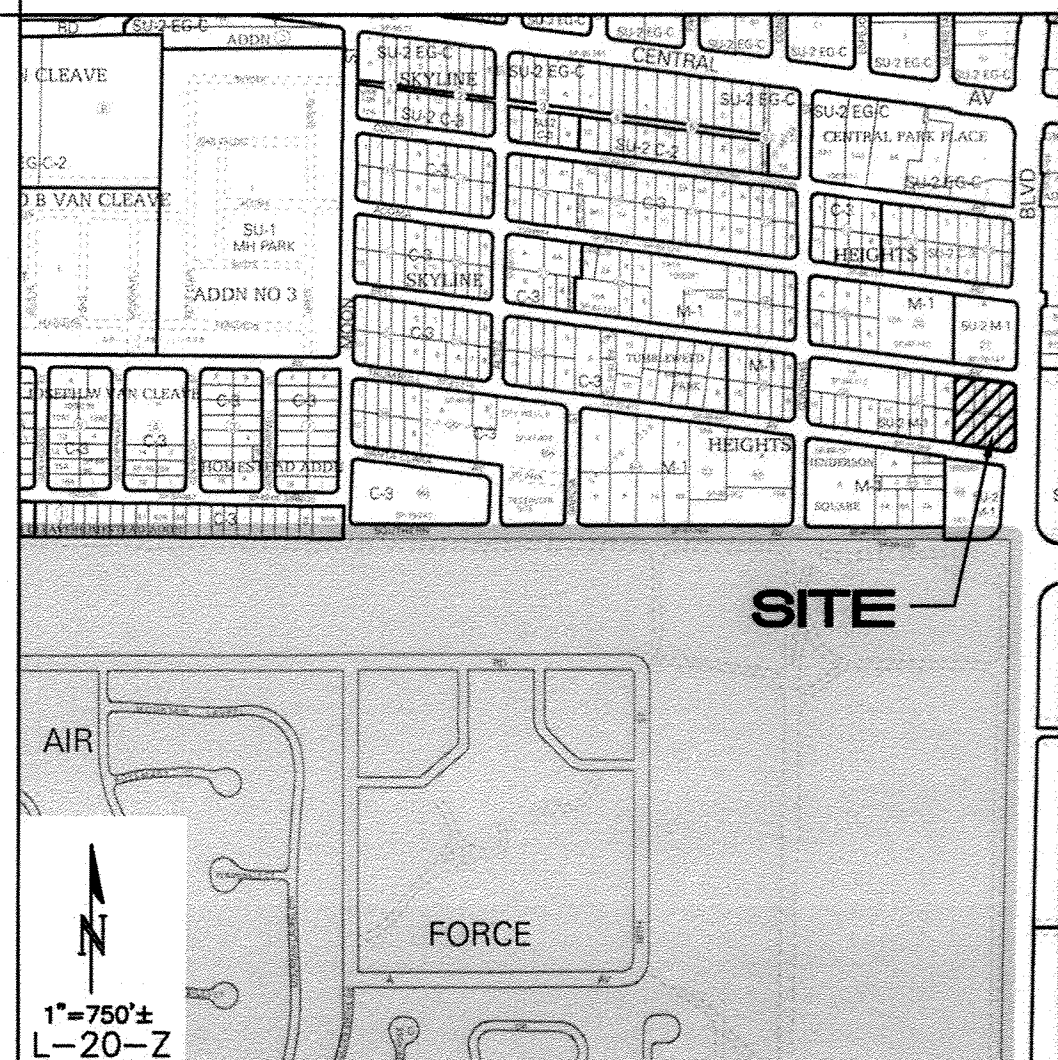
Historic = 5.5 CFS Developed Q = 6.8 CFS

BASIN NO.	A	DESCRIPTION	Discharges to Trumbull thru sdwk culvert
Area of basin flows =	11498	SF	0.3 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 2.18 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 5%
$V_{360} = 2090$ CF			C = 10%
Sub-basin Peak Discharge Rate (see formula above)			D = 85%
$Q_p = 4.3$ cfs			
BASIN NO.	B	DESCRIPTION	Discharges to Bell Ave
Area of basin flows =	50611	SF	1.2 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 2.18 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 5%
$V_{360} = 9198$ CF			C = 10%
Sub-basin Peak Discharge Rate (see formula above)			D = 85%
$Q_p = 5.5$ cfs			

90% STORM "FIRST FLUSH" RETENTION:

$V_{FF} = \text{AREA OF } \varnothing D \times 0.34" / 12$
 $V_{FF} = 52,792 \text{ SF} \times 0.34" / 12 = 1,496 \text{ CF}$
TOTAL PONDING PROVIDED = 1,520 CF > REQUIRED.

VICINITY MAP



PROJECT DATA

LEGAL DESCRIPTION: LOT 1A, BLOCK 48, SKYLINE HEIGHTS SUBDIVISION
SITE AREA: 1.43 ACRES
FLOOD ZONE: THIS SITE IS OUTSIDE THE 100-YEAR FLOODPLAIN PER FEMA FIRM PANEL NO. 35001C00358H DATED 08/16/2012.
ENGINEER: GENEVIEVE DONART
ISAACSON & ARFMAN, P.A.
128 MONROE ST NE, ABQ. NM 87108
PHONE: (505) 268-8828
SURVEYOR: CARTESIAN SURVEYS, INC.
P.O. BOX 44414
RIO RANCHO, NM 87174
PHONE: (505) 896-3050
BENCHMARK: ACS MONUMENT "4-L22"
ELEV=5586.425 (NAVD 1988)

EXISTING CONDITIONS: THE EXISTING SITE WAS FORMERLY A SCHOOL BUS YARD. THERE IS SOME CONCRETE REMAINING FROM OLD BUILDING FOUNDATIONS. THE SITE SLOPES FROM THE SOUTHEAST TO THE NORTHWEST AT APPROXIMATELY 1.5%. ON-SITE STORM WATER OF 5.5 CFS DISCHARGES TO BELL AVE OVER THE SIDEWALK. THE ADJACENT HALF OF EUBANK BLVD DRAINS ONTO THE PROPERTY.

PROPOSED CONDITIONS: THE PROPOSED SITE WILL HAVE ONE 5,700 SF BLDG. (NORTH) AND A SECOND PAD FOR A FUTURE BUILDING (SOUTH). CURB IS ADDED ALONG THE ADJOINING EDGE OF EUBANK, WHICH WILL REDIRECT OFF-SITE FLOW TO THE NORTH. THE SITE DISCHARGES 5.5 CFS TO BELL AVE FROM THE NORTHWEST DRIVEPAD AND 1.3 CFS TO TRUMBULL AVE FROM A 2' WIDE SIDEWALK CULVERT.

LEGEND

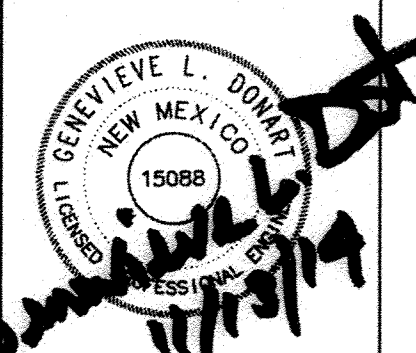
- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FF = 6881.0 FINISH FLOOR ELEVATION
- TW=99.0 BW=95.0 GROUND AT TOP OF RETAINING WALL ELEVATION
- INV=72.5 GROUND AT BASE OF RETAINING WALL
- INVERT ELEVATION

FOR INFORMATION ONLY
CPN 638282
SHEET 3 OF 9

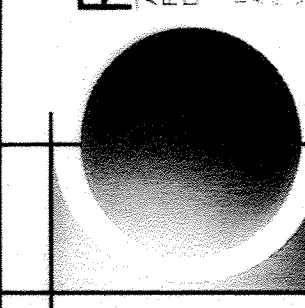
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2055 CG-101.dwg Nov 13, 2014

INNOVA PLAZA - SITE DEVELOPMENT
GRADING & DRAINAGE PLAN
401 EUBANK SE, ALBUQUERQUE, NM 87123
PROJECT # 1459

REVISION DATE



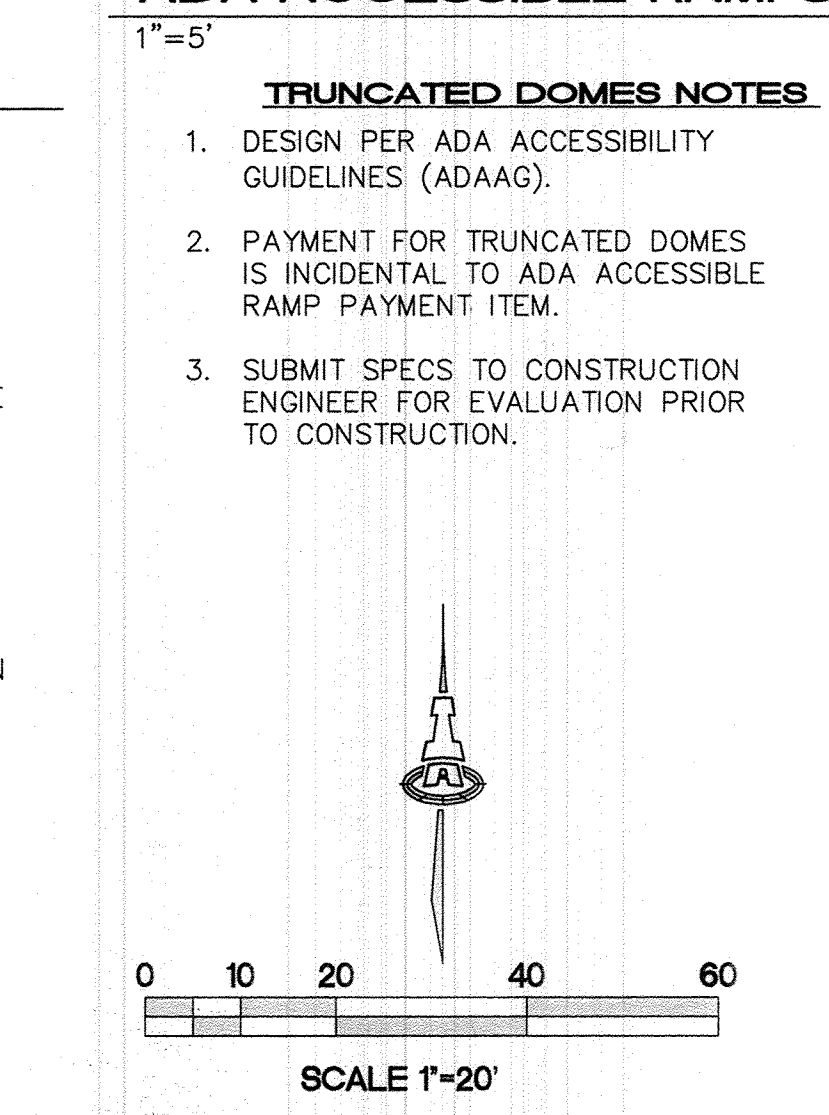
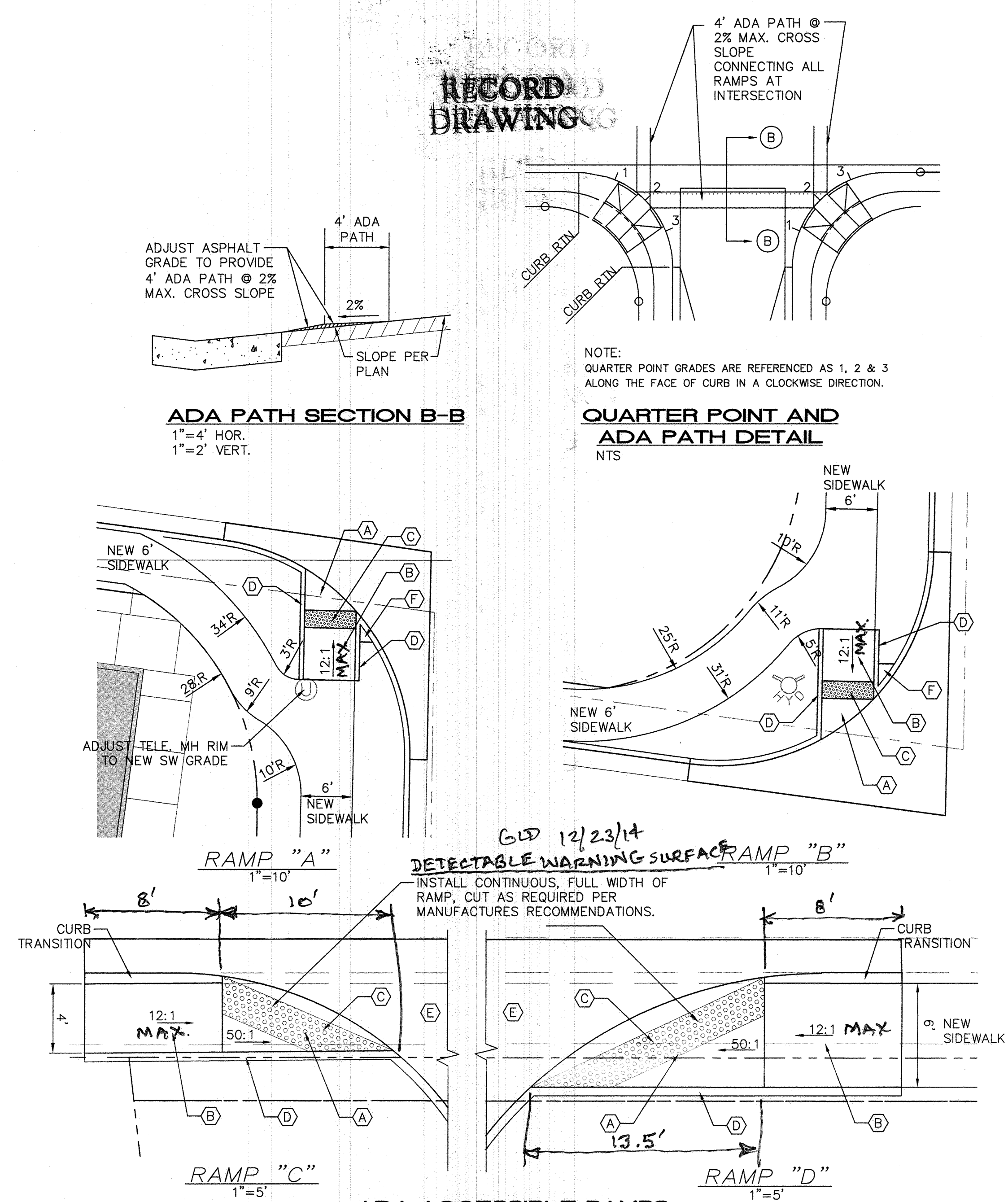
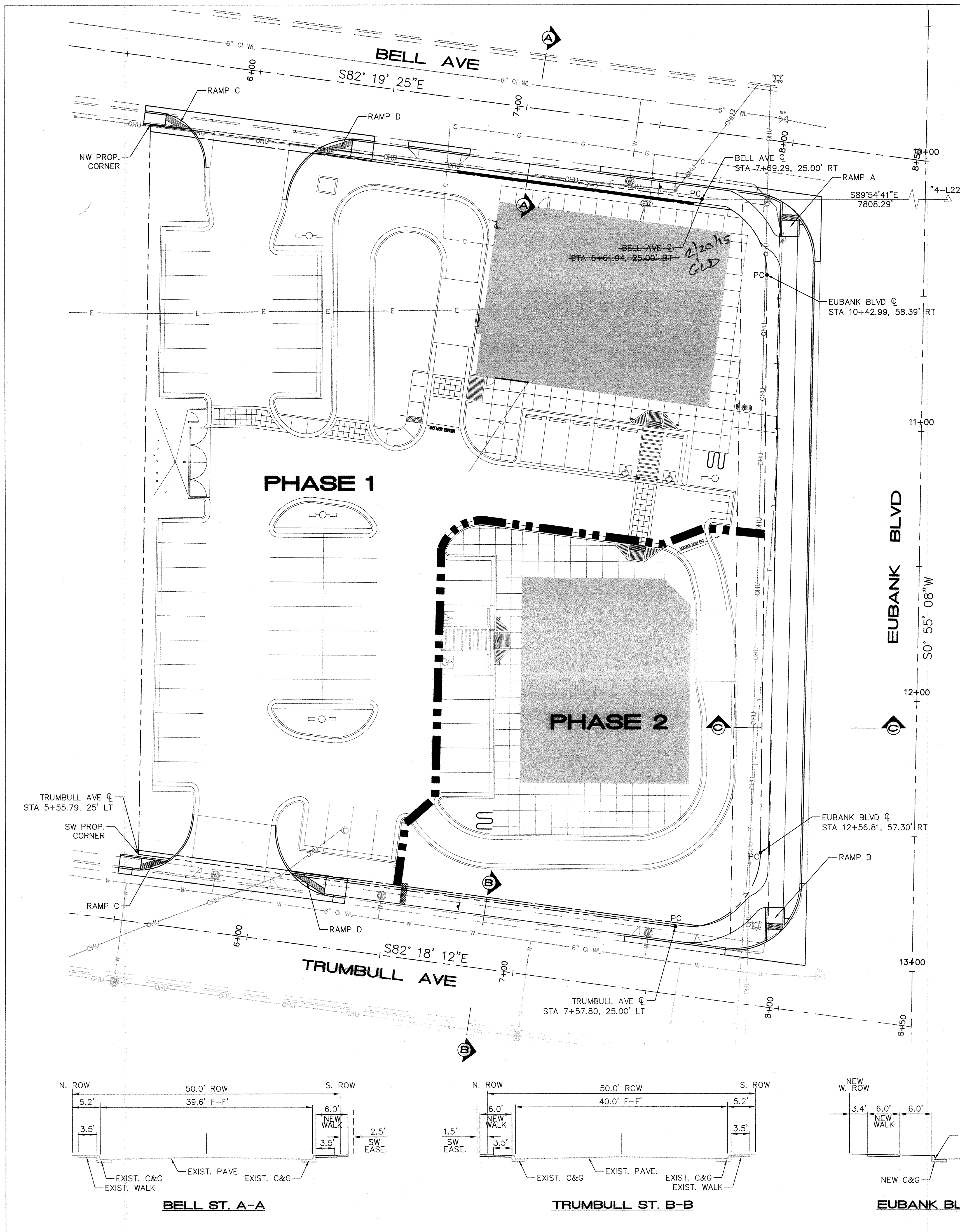
RBA
ARCHITECTURE
DESIGN



DATE
NOVEMBER 13, 2014

SHEET NUMBER

CG-101



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2055 CP-101.dwg Dec 15, 2014

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

**INNOVA PLAZA
MASTER PAVING PLAN**

DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	Mo./DAY/YR.	Mo./DAY/YR.
APPROVED JAN 30 2015 DESIGN REVIEW COMMITTEE	APPROVED FEB 19 2015 CITY ENGINEER		
City Project No. 638282	Zone Map No. L-20	Sheet 5	Of 9

AS-BUILT INFORMATION		BENCH MARKS		SURVEY INFORMATION		ENGINEER'S SEAL	
CONTRACTOR	Albuquerque Control Survey Monument "q-L22"	CONTRACTOR	Albuquerque Control Survey Monument "q-L22"	FIELD NOTES		SEAL	
WORK	By Survey Star	WORK	By Survey Star				
INSPECTOR	DATE 5/14/15	INSPECTOR	DATE 5/14/15				
ACCEPTANCE BY	DATE 5/14/15	ACCEPTANCE BY	DATE 5/14/15				
VERIFICATION BY	DATE 5/14/15	VERIFICATION BY	DATE 5/14/15				
DESIGNED BY	DATE 5/14/15	DESIGNED BY	DATE 5/14/15				
DRAWN BY	DATE 5/14/15	DRAWN BY	DATE 5/14/15				
CHECKED BY	DATE 5/14/15	CHECKED BY	DATE 5/14/15				
RECORDED BY	DATE 5/14/15	RECORDED BY	DATE 5/14/15				
NO.		NO.					



DIFFERENT CRITERIA, E.G., GREATER DEPTH OF BURY, ETC., WILL REQUIRE DIFFERENT RESTRAINED LENGTHS. THESE MUST BE CALCULATED BY A QUALIFIED PROFESSIONAL ENGINEER AND APPROVED BY ABCWJA.

RESTRAINED JOINT LENGTHS FOR WATERLINE FITTINGS

WATER METER AND FIRE LINE SUMMARY FOR COMMERCIAL DEVELOPMENT				
WATER METERS				
#	SIZE	LOCATION (STATION/OFFSET)	USE (DOMESTIC/IRRIGATION)	No. UNITS SERVED
1	1 1/2"	7+64.94, 8.5'LT (BELL)	DOMESTIC	1
2	1 1/2"	7+45.70, 8.5'LT (TRUMBULL)	DOMESTIC	1
3	1 3/4"	7+41.69, 8.5'LT (BELL)	EXIST. FOR IRRIGATION	1
FIRE LINES				
#	SIZE	LOCATION (STATION/OFFSET)		
1	4"	7+70.94, 8.6' LT, BELL AVE		
2	4"	7+54.38, 11.9' LT, TRUMBULL AVE		



SHUT-OFF VALVES 432, 491, 482 AND 492 TO PROVIDE NON-PRESSURE CONNECTION.

THE CONTRACTOR SHALL COORDINATE WITH THE WATER AUTHORITY SEVEN (7) DAYS IN ADVANCE OF PERFORMING WORK THAT WILL AFFECT THE PUBLIC WATER OR SANITARY SEWER INFRASTRUCTURE.

WORK REQUIRING SHUTOFF OF WELL COLLECTORS, TRANSMISSION LINES, OR FACILITIES DESIGNATED AS MASTER PLAN FACILITIES MUST BE COORDINATED WITH THE WATER AUTHORITY 14 DAYS IN ADVANCE OF PERFORMING SUCH WORK. ONLY WATER AUTHORITY CREWS ARE AUTHORIZED TO OPERATE PUBLIC VALVES. SHUTOFF REQUESTS MUST BE MADE ONLINE AT:

http://www.abcwuo.org/Water_Shut_off_and_Turn_on_Procedures.aspx

RECORD DRAWING

NOTES: DRAWING

ALL MECHANICAL JOINTS SHALL BE RESTRAINED DURING THE TESTING.

2. THE CONTRACTOR SHALL PROVIDE A MINIMUM PIPE LENGTH OF 20 LF FROM ALL MECHANICAL JOINTS. ALL PIPE JOINTS WITHIN 20 LF OF A MECHANICAL JOINT SHALL BE RESTRAINED AT THE CONTRACTOR'S EXPENSE.

3. THE CONTRACTOR SHALL RESTRAIN ALL PIPE JOINTS IN THE SPECIFIED DISTANCE LISTED IN THE TABLE ON THIS SHEET.

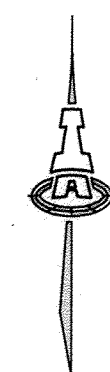
4. THE CONTRACTOR SHALL RESTRAIN ALL FIRE HYDRANT JOINTS FROM THE TEE ON THE MAIN TO THE FIRE HYDRANT FLANGE.

GENERAL NOTES

1. EXISTING UTILITY LINES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND MAY BE INCOMPLETE OR OBSOLETE. SUCH LINES MAY OR MAY NOT EXIST WHERE SHOWN OR NOT SHOWN. ALL UTILITIES SHALL BE FIELD VERIFIED AND LOCATED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. 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.
2. CONTRACTOR SHALL NOT USE VIBRATORY COMPACTION EQUIPMENT OR HEAVY VEHICLES OVER EXISTING UTILITIES.
3. CENTERLINES OF CONSTRUCTION IS ALONG CENTERLINE OF ROAD.
4. PROPOSED WATERLINE MATERIAL SHALL BE PVC PIPE MEETING AWWA C900 DR-18 REQUIREMENTS (6"-12").
5. ALL SANITARY SEWER LINE MATERIALS SHALL BE PVC SDR-35 PIPE.
6. ALL FITTINGS ON WATERLINES SHALL HAVE RESTRAINED JOINTS PER TABLES THIS SHEET.
7. SUPPLEMENTAL SPECIFICATION: ALL SEWER BACKFILL FOR WATER LINE AND SANITARY LINE TRENCHES SHALL BE COMPACTED TO A MINIMUM 95% MAXIMUM DENSITY PER ASTM D-1557.
8. ALL WATER VALVE BOXES AND MANHOLES IN THE STREET CONSTRUCTION ARE TO BE ADJUSTED TO FINISH GRADE AND WILL BE MEASURED AND PAID PER EACH.

LEGEND

- | | |
|---|---|
|  | NEW GATE VALVE W/ VALVE BOX |
|  | NEW WATER LINE W/ FITTING |
|  | NEW WATER SERVICE METERS |
|  | NEW SAS LINE & MH |
|  | 6" SEWER SERVICE |
|  | EXISTING SAS LINE & MH |
|  | EXISTING WL & GV |
|  | REMOVE AND REPLACE
EXISTING PAVEMENT |



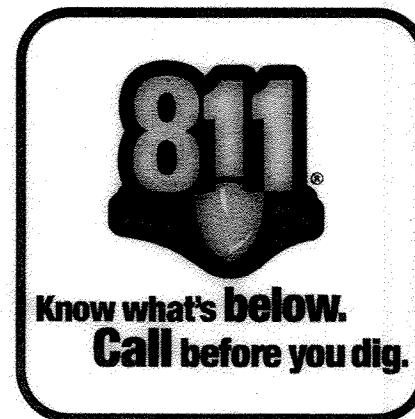
ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87108
Ph. 505-268-8828 www.iacivil.com

2055 CU-101.dwg Dec 15, 2014

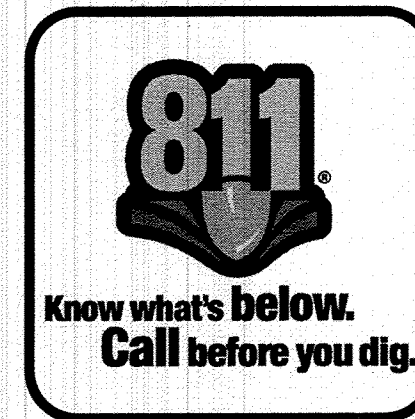
CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

INNOVA PLAZA
MASTER UTILITY PLAN

DESIGN REVIEW COMMITTEE		CITY ENGINEER APPROVAL		LAST DESIGN UPDATE	Mo./DAY/YR.	Mo./DAY/YR.
						
City Project No.		Zone Map No.		Sheet	Of	
638282		L-20		8		9



RECORD
DRAWING



GENERAL NOTES

SEWER:

1. INSTALL SERVICE LINE PER ABCWUA STD DWG 2125.
2. PAVEMENT CUTS FOR UTILITIES PER COA STD DWG 2465

WATER:

1. VALVE BOX ASSEMBLY PER ABCWUA STD. DWG. 2326.
1. FIRE LINE RING AND COVER PER ABCWUA STD. DWG. 2329.
2. RESTRAINED JOINTS PER TABLES ON SHEET 8.
3. ADJUST ALL VALVE COVERS IN PAVED ROADS TO FINISHED ROAD GRADES PER COA STD DWG 2460.
4. CONSTRUCT ALL WATER SERVICES PER COA STD DWGS 2361, 2363 & 2367.

VALVE COORDINATES

NOS.	N	E
1	1490562.36	1555799.39
2	1480239.23	1555794.51

LEGEND

- NEW GATE VALVE W/ VALVE BOX
- NEW WATER LINE W/ FITTING
- NEW WATER SERVICE METERS
- NEW SAS LINE
- 6" SEWER SERVICE
- EXISTING SAS LINE & MH
- EXISTING WL & GV
- REMOVE AND REPLACE EXISTING PAVEMENT, CURB & GUTTER.



SCALE 1"=20'

ISAACSON & AREMAN, P.A.
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Albuquerque, New Mexico 87108

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2055 CU-301.dwg

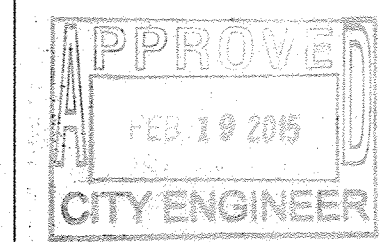
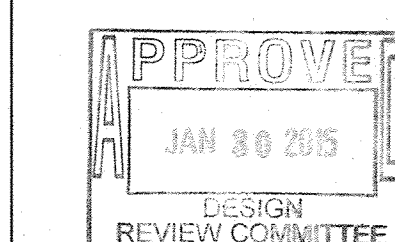
Dec 15, 2014

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

INNOVA PLAZA BELL AVE - TRUMBULL AVE UTILITY PLANS

DESIGN REVIEW COMMITTEE

CITY ENGINEER APPROVAL



LAST DESIGN UPDATE

Mo./DAY/YR. Mo./DAY/YR.

City Project No.

638282

Zone Map No.

L-20

Sheet

9

Of

9

SURVEYORS CERTIFICATION

I, Russ P. Hugg, New Mexico Professional Surveyor Number 9750, hereby certify that the as-built information shown hereon is the result of an actual field survey performed by me or under my direct supervision and that the same is true and correct to the best of my knowledge and belief.

Russ P. Hugg
NMPS No. 9750

5/22/14, 2015



GLD
12/22/14
EX SAS MH
INV = 58.3

REMOVE, DISPOSE AND REPLACE
EXISTING PAVEMENT FOR UTILITY
CONSTRUCTION. PER SHEET 8.

STA=7+36.97, 0.00' RT
NEW 6" SEWER SERVICE
EX INV 8"=5458.3±
6" INV=5459.0

STA=7+64.94, 8.54' LT
1- 1 1/2" WATER SERVICE

STA=7+70.94, 8.55' LT
NON-PRESSURE CONNECTION
1-6"x4" TEE
1-6" COUPLING
1-4" GATE VALVE W/ BOX
37 LF 4" WATERLINE
1-4" PIV (PRIVATE)
1-4" CAP
RESTRAINTS

BELL AVE

EUBANK BLVD

PRIVATE SEWER LINES
BY OTHERS

REMOVE AND DISPOSE
EXISTING SEWER SERVICE
PLUG INVERT AT MANHOLE

EXISTING 3" WATER SERVICE
TO BE USED FOR IRRIGATION.

PRIVATE 4" FIRE LINES
BY OTHERS

REMOVE, DISPOSE AND REPLACE
EXISTING PAVEMENT FOR UTILITY
CONSTRUCTION OR REMOVAL.
PER SHEET 8

TRUMBULL AVE

EUBANK BLVD

STA=5+84.87, 14.20' LT
TERMINATE EXISTING
WATER SERVICE AT MAIN.
REMOVE AND DISPOSE
METER BOX AND CURB STOP.
CLOSE CORP STOP, CUT
AND CAP AND PULL
COPPER SERVICE LINE.

STA=6+47.57, 13.12' LT
TERMINATE EXISTING
WATER SERVICE AT MAIN.
REMOVE AND DISPOSE
METER BOX.
CLOSE CORP STOP, CUT
AND CAP AND PULL
COPPER SERVICE LINE.

STA=7+45.70, 12.20' LT
1- 1 1/2" WATER SERVICE

STA=7+48.01, 12.00' LT
TERMINATE EXISTING
WATER SERVICE AT MAIN.
REMOVE AND DISPOSE
METER BOX.
CLOSE CORP STOP, CUT
AND CAP AND PULL
COPPER SERVICE LINE.

STA=7+54.38, 11.93' LT
NON-PRESSURE CONNECTION
1-6"x4" TEE
1-6" COUPLING
1-4" GATE VALVE W/ BOX
15 LF 4" WATERLINE
1-4" GATE VALVE (PRIVATE)
W/ BOX
1-4" CAP
RESTRAINTS