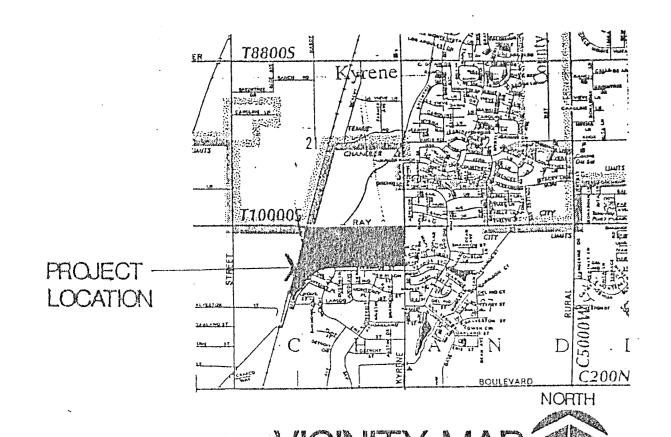
I HEREBY CERTIFY THAT NO TREES OR BOULDERS ARE DESIGNED CLOSER THAN 6' AWAY FROM FACE OF CURB. REGISTERED LANDSCAPE ARCHITECT SHEET, #3,12 -

KEY MAP SHEET [#2,11 ----PROJECT\_LIMIT\_LINE MATCHLINE BB **SHEET #9,18** SHEET #6,15 SHEET\_#8,17



# LANDSCAPE GUARANTEE

BY THE CITY PLANT MATERIALS WHICH ARE NOT APPROVED BY THE CITY PRIOR TO OCTOBER 1St. OF THE CALENDER YEAR IN WHICH THEY ARE INSTALLED SHALL BE FURTHER GUARANTEED UNTIL MAY 20TH. OF THE FOLLOWING CALENDER YEAR.

TREES, SHRUBS, VINES, GROUNDER, AND TURF WHICH HAVE TO BE REPLACED UNDER TERMS OF THE GUARANTEE SHALL BE GUARANTEED FOR AN ADDITIONAL 60 DAYS FROM THE DATE OF REPLACEMENT.

ALL PLANT MATERIALS REQUIRING REPLACEMENT UNDER THE REPLACED WITHIN TEN (10) WORKING DAYS FROM THE DATE OF WRITTEN NOTIFICATION FROM THE OWNER OF THE CITY OF CHANDLER

# SITE DATA:

GROSS AREA: NET AREA: '

96.05 ac. 90.18 ac.

PUBLIC STREETS: 18.70 ac. 20% of TOTAL SITE LOT ACREAGE: 59.23 ac. 67% of TOTAL SITE LANDSCAPE ACREAGE: 12.25 ac. 13% of TOTAL SITE

SIDEWALK WITHIN LANDSCAPE AREA: .15 ac. 1% of TOTAL L/S DECOMPOSED GRANITE; 7.57 ac. 61% of TOTAL L/S

TUHF: 4.27 ac. 36% of TOTAL L/S

RIVER RUN ROCK: .27 ac. 2% of TOTAL L/S

SHRUBS/GROUNDCOVER; 138,093 sq. ft.- 40% of TOTAL D.G. AREA 25% of TOTAL L/S

## SHEET INDEX DESCRIPTION COVER SHEET PLANTING PLAN PLANTING PLAN PLANTING PLAN PLANTING PLAN - 2x4x8 BRICK PAVERS PLANTING PLAN PLANTING PLAN PLANTING PLAN PLANTING PLAN PLANTING PLAN IRRIGATION PLAN - TYPCAL 32" SQ. COLUMN #4 REBAR @ 32" O.C.-GROUT SOLID IRRIGATION PLAN APPLY 9 guage JCINT RENF. @ 16" O.C. IRRIGATION PLANS #4 REBAR-CONT. (FOOTING) IRRIGATION PLAN FINISHED GRADE IRRIGATION PLAN WALL ELEVATION IRRIGATION PLAN N.T.S. IRRIGATION PLAN IRRIGATION PLAN COLUMN SECTION/ELEVATION IRRIGATION PLAN SITE DETAILS PERIMETER WALL DETAIL **DETAILS** TYPICAL TO ENTIRE SITE-TO MATCH EXISTING WARNER' SPECIFICATIONS 22

N.T.S.

# NOTE:

INTERIOR TRACT LIGHTING WILL BE SHOWN ON STREET LIGHTING PLAN; LIGHTING PLANS FOR ENTIRE PROJECT WILL BE DONE BY S.R.P.AND ARE NOT AVAILABLE AT THIS TIME AS OF 4/14/93

RANCH WALLS

SPECIAL MAINTENCE NUIE:LANDSCAPE CONTRACTOR TO FEHILIZE ALL TURE AREAS INVESTIGATION PERIOD PRIOR TO TURNING OVER TO MAINTENCE COMPANY.

PLANT LEGEND IS PROVIDED AS A CONVENIENCE ONLY. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL PLANT QUANTITIES.

# PLANT LEGEND

GROUNDCO\

1 Land / VI VI E	Land Land V Land				
SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	QTY.	REMARKS
REES +	WASHINGTONIA ROBUSTA ACACIA SALICENA PROSOPIS CHILENSIS OLEA EUROPEA	MEXICAN FAN PALM WILLOW ACACIA CHILEAN MESQUITE 'SWAN HILL' OLIVE	20' HT. 15 GAL. 24" BOX 24" BOX	16 204 280 149-	SELECT FOR UNIFORMITY SELECT FOR UNIFORMITY SELECT FOR UNIFORMITY MULTI-TRUNK/SELECT FOR UNIFORMITY
OVERS O	BOUGAINVILLEA 'B. KARST' CAESALPINA PULCHERRIMA CASSIA PHYLLODENIA ENCELIA FARINOSA LEUCOPHYLLUM FRUTESCENS, LANTANA MONTEVIDENSIS LANTANA CAMARA NERIUM OLEANDER	BOUGAINVILLEA RED BIRD OF PARADISE SILVERY CASSIA BRITTLEBUSH 'GREEN CLOUD' TEXAS SAGE TRAILING PURPLE LANTANA YELLOW MOUND LANTANA 'PETITE PINK' OLEANDER,	5 GAL. 5 GAL. 5 GAL. 5 GAL. 1 GAL. 1 GAL. 5 GAL.	52 282 204 136 768 341 862 135	STAKE TO WALL AS SHOWN  OF TREO BRAVO' TEXAS SAGE IN PARK AREA-120 TO
	TECOMA STANS	ARIZONA YELLOW BELLS	5 GAL.	49	SMALL LEAF CULTIVER IN PARK AREA -6 TOTAL

CASSIA NEMOPHILA 329 1 GAL 'DESERT CARRPET' ACACIA ACACIA REDOLENS '2" DECOMPOSED GRANITE-3/4" MINUS-'DESERT GOLD'-± 345,233 SQ. FT. (2,877 TONS) RIVER RUN ROCK (3 PARTS: 2"-3", 1 PART: 6"-8" SIZE)-± 12,108 SQ. FT.

DESERT CASSIA

THEVETIA

MYOPORUM

BRICK HEADER (LAYED SIDE-TO-SIDE)-步 6,892 LIN. FT.

STEEL HEADER - ± 2,739 LIN. FT. TURF-SEED BY SEASON-± 197,725 SQ. FT AS LABELED

THEVETIA PERUVIANNA

MYOPORUM PARVIFOLIUM

NOTE: PROVIDE STEEL HEADER AROUND RIVER ROCK AREAS THAT ARE ADJACENT TO TURF AREAS

# LANDSCAPE NOTES:

- 1. Before work begins on the project, the Landscape Contractor shall review the project with the
- 2. For clarification of discrepancies between the drawings and the site, it should be brought to the attention of the Landscape Architect prior to beginning work.
- 3. Plants are to be located away from obstructions, such as sprinkler heads, and light fixtures.
- 4. The Landscape Architect is to approve any and all substitutions
- 5. Landscape Contractor to provide agronomy testing for the site and comply with testing labs recommendations for backfill mix. Submit report to the Landscape Architect.
- 6. Prior to digging, all underground utilities are to be located and protected. 7. See the engineering drawings for drainage flows. The Landscape Contractor shall be
- esponsible that these are provided and not impaired with obstructions. 8. Plant list provided for Contractor's convenience only. Plans take precadence.
- 10.4 Plant shrubs 2' (or more) away from all headers, sidewalks, or curbs in large landscape areas.
- 11. APPLY 3 APPLICATIONS OF PRE-EMERGENT (SURFLAN) BEFORE DECOMPOSED GRANITE INSTALLATION AND AT 90 DAYS AFTER INSTALLATION OF DECOMPOSED GRANITE.

# PALM TREE NOTES:

5 GAL

1 GAL

5 GAL

1. All palms shall be inspected and approved by the Landscape Architect prior to shipment and/or

AS SHOWN

1/4" MINUS 'DESERT GOLD AROUND

BASKETBALL COURT, SEE SHT. #6-±;1,785 SQ. FT

4' O.Cd

- 2. All palms shall be straight and have a uniform or uniformly tapering trunk for their trunk height.
- 3. All palms shall be uniformly pruned of old fronds. Heads shall be trimmed to not less than 10 healthy fronds. Fronds shall be tied uniformly with approved twine. All heads shall be uniformly for all trees within the project. Palms shall be completely peeled from grade to fronds.
- 1. All palms shall be planted vertical according to detail on drawings. They shall be planted to either uniform or random heights as indicated on the plan. Height will be measured from finish. grade to base of fronds.
- 5. Palms buried less than 5' shall be braced as per detail.

220

1900

503

6. Locations for palms shall be approved by the Landscape Architect prior to digging planting pits.

# NOTE:

ALL TREES (EXCEPT PALMS-20' HT.) ON KYRENE ROAD AND RAY ROAD MUST BE A MIN. 10' HT.

# IRRIGATION LEGEND

	1 1 V Long Long V Long Long V Long Long V Long Long V Long
YMBOL	DESCRIPTION
PART FULL	MUNTER I-25 POP-UP LAWN SPRINKLERS (NOZZLE #1,2,3)  NELSON PRO 6002-ADV POP-UP LAWN SPRINKLERS (NOZZLE #6,8,9)  HUNTER S-TYPE POP-UP LAWN SPRINKLERS (MODEL 15-A,15-F)  RAINBIRD 1400 SERIES PRESSURE COMPENSATING BUBBLERS (1401-SHRUBS, 1402-TREES)  3/4" PVC PIPE WITH BOWSMITH EMITTERS AS PER SCHEDULE (SEE DETAIL SHEET)  FLUSH CAP (SEE DETAIL SHEET)
	RAINBIRD RSI-HLB-15 PRESSURE REGULATOR-AG PRODUCTS 'Y'-STRAINER HARDIE 700 SERIES- ELECTRIC VALVE (SIZE AS INDICATED) LATERAL LINE-PVC PIPE- CLASS 200 MIN. AS PER SCHEDULE (SEE DETAIL SHEET) MAINLINE PVC PIPE-CLASS 200 MINSIZE AS INDICATED CONTROLLER AND STATION-COLOR OF CONTROLLER(S) TO MATCH WALL COLOR
(A-1) 1" (M)	- VALVE SIZE  RAINBIRD RPA SERIES REDUCED PRESSURE BACKFLOW PREVENTER SIZE AS INDICATED  METER-BY OTHERS- SIZE AS INDICATED  RAINMASTER RMB/RME SERIES, WALL-MOUNTED CONTROLLER
	CONTROLLER 'A': RME-12 CONTROLLER 'E': RME-18 CONTROLLER 'F': RMB-5 CONTROLLER 'C': RME-8 CONTROLLER 'G': RMB-5 CONTROLLER 'G': RMB-5 CONTROLLER 'D': RME-12 CONTROLLER 'G': RMB-5 CONTROLLER 'G': RMB

INSTALLATION, CITY WATER PRESSURE TO BE A MIN. OF 60 P.S.I.

- 1) COORDINATE PROGRAMS SO THAT OVERLAP OF STATIONS DOES NOT CAUSE SIGNIFICANT PRESSURE LOSS.
- 2) IRRIGATION AND ELECTRICAL SLEEVES SCHEDULE 40 OR BETTER. PROVIDE AND SIZE AS REQUIPED. 3) PLACE ALL MAINLINES AND IRRIGATION EQUIPMENT IN LANDSCAPE
- AREAS (TYP.). LATERAL IS SCHEMATIC.

A THOROUGH ATTEMPT HAS BEEN MADE TO SHOW THE LOCATIONS OF ALL UNDERGROUND OBSTRUCTIONS AND UTILITY LINES IN THE WORK AREA. HOWEVER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES TO OBSTRUCTIONS AND UTILITY LINES ENCOUNTERED DURING CON-STRUCTION AND SHALL DETERMINE THE EXACT LOCATION OF UTILITIES IN ADVANCE OF TRENCHING.

PHASE 4-38 LOTS

PHASE 5-43 LOTS

PIASE SELLS TIME - -WARNER RANCH 4 UNIT 1,59 LOTS WARNER RANCH 4 UNIT 2; PHASE 1-75 LOTS PHASE 2-54 LOTS PHASE 3-63 LOTS

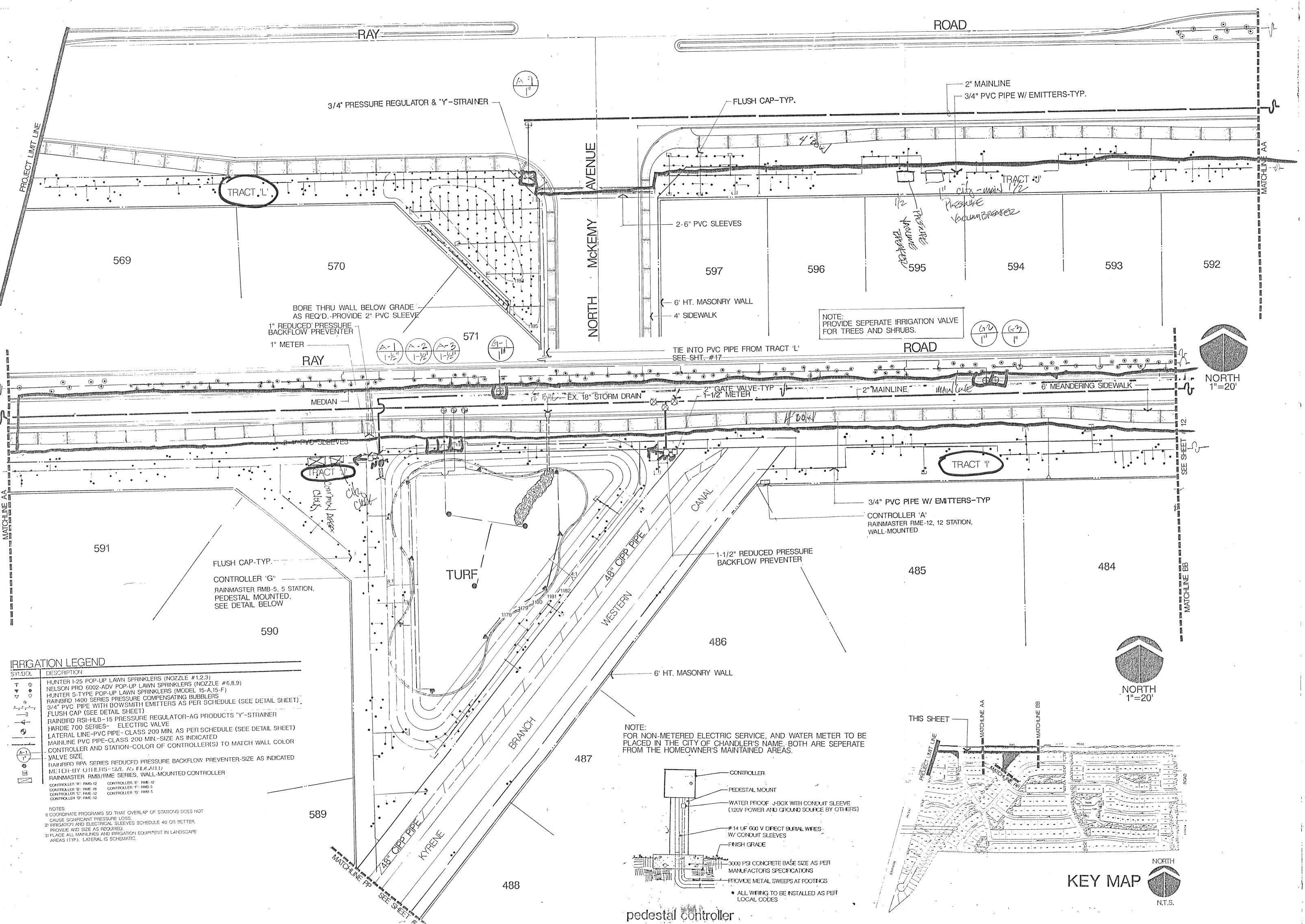
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DATE NOV.4,1992

REVISION EEB. 15, 1993

APH.14,1993

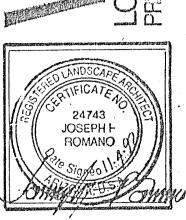
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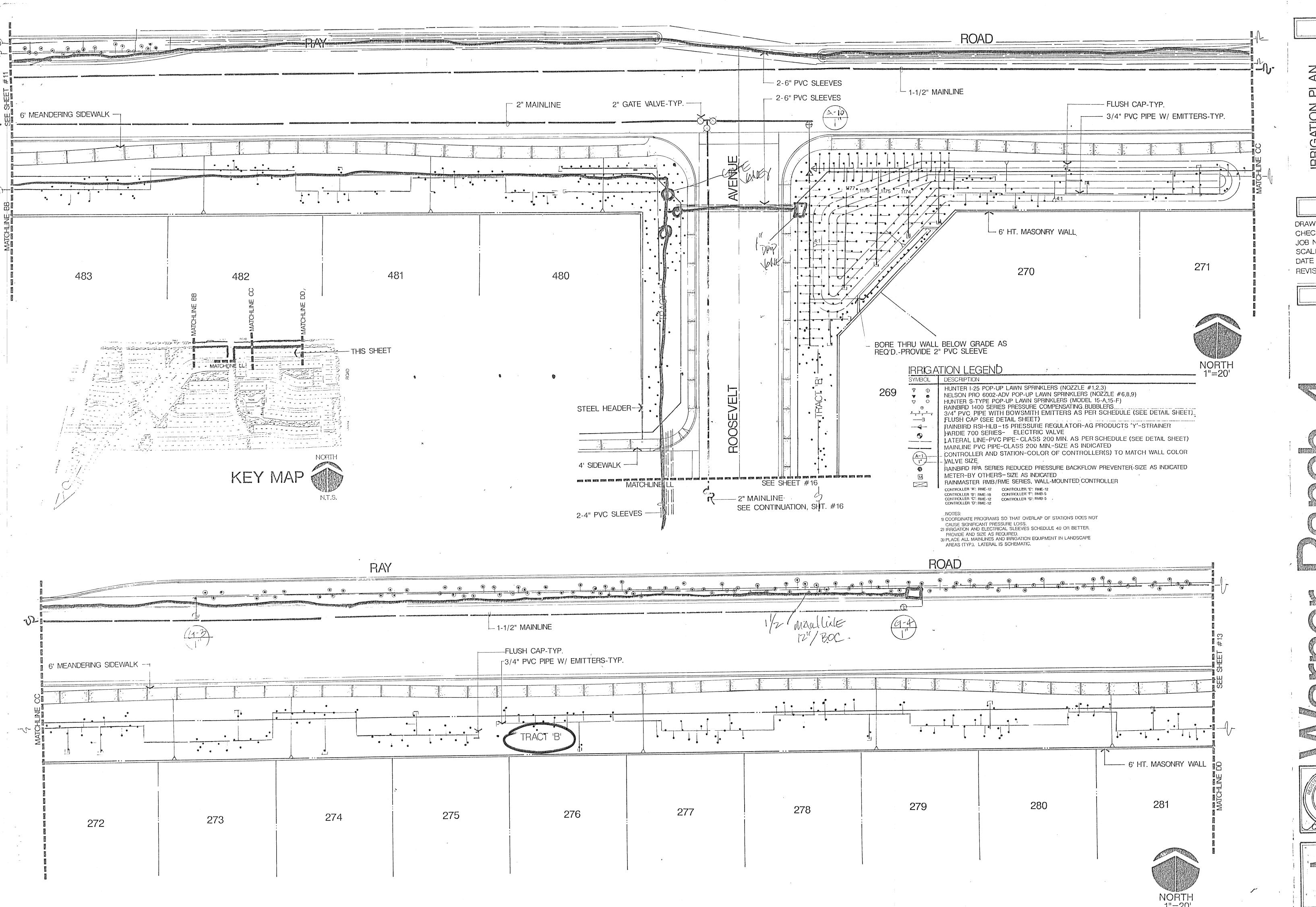


BRIGATION PLAN
DESIGN plus WEST
LANDSCAPE ARCHITECTURE
COLF ARCHITECTURE
PLANNING:
PLA

DRAWN NR
CHECKED JR
JOB NO.
SCALE \_\_1"=20'
DATE NOV.4,1992
REVISION FEB.15,1993
\_\_JANUARY 27,1994

LOCATED IN: CHANDLER, ARIZONA





DESIGN PLAN

DESIGN Plus WES

LANDSCAPE ARCHITECTURE

COLF ARCHITECTURE

PLANDSCAPE ARCHITECTURE

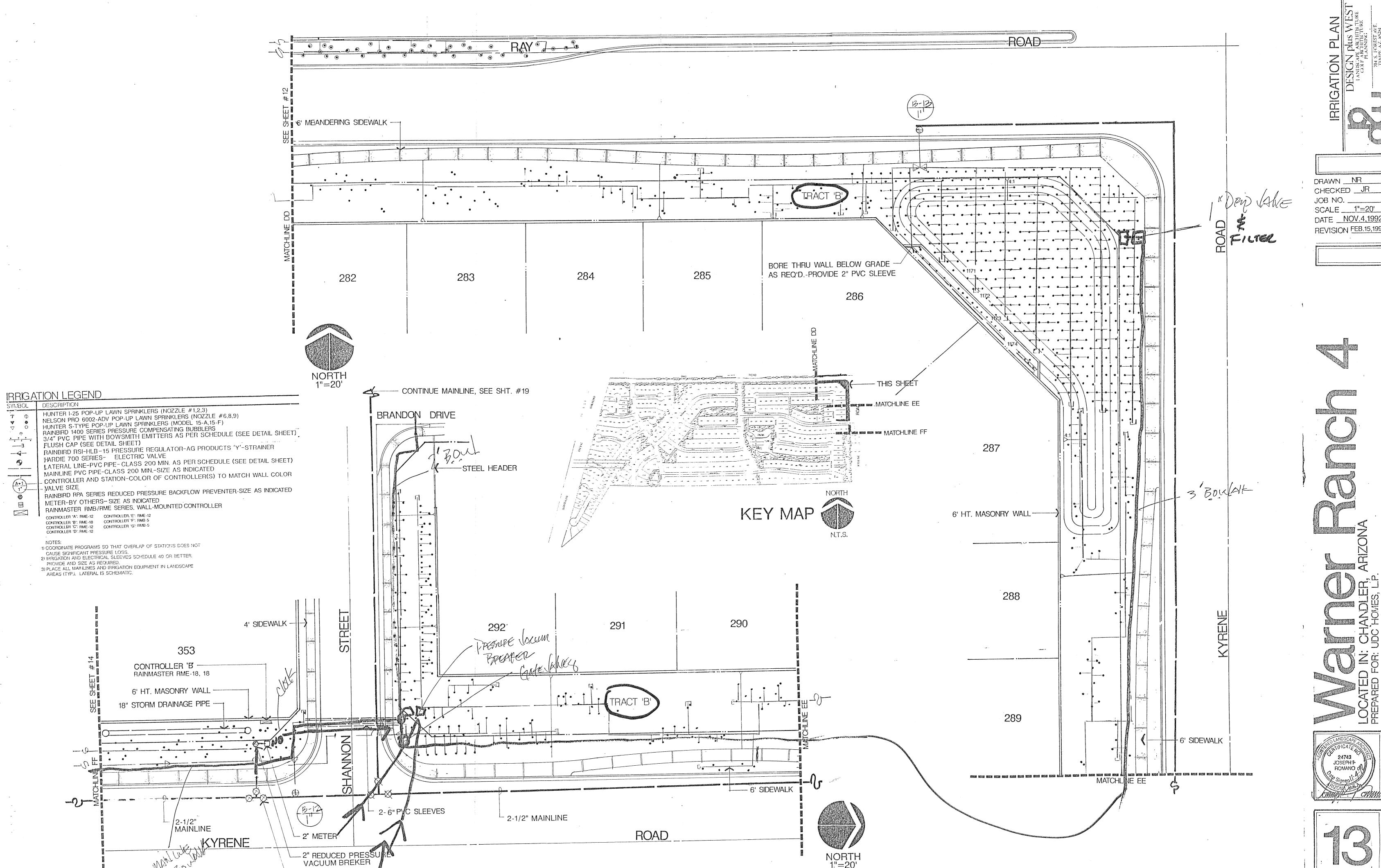
TO A S. FOREST AVE.

TEAMPE, AZ. 85281

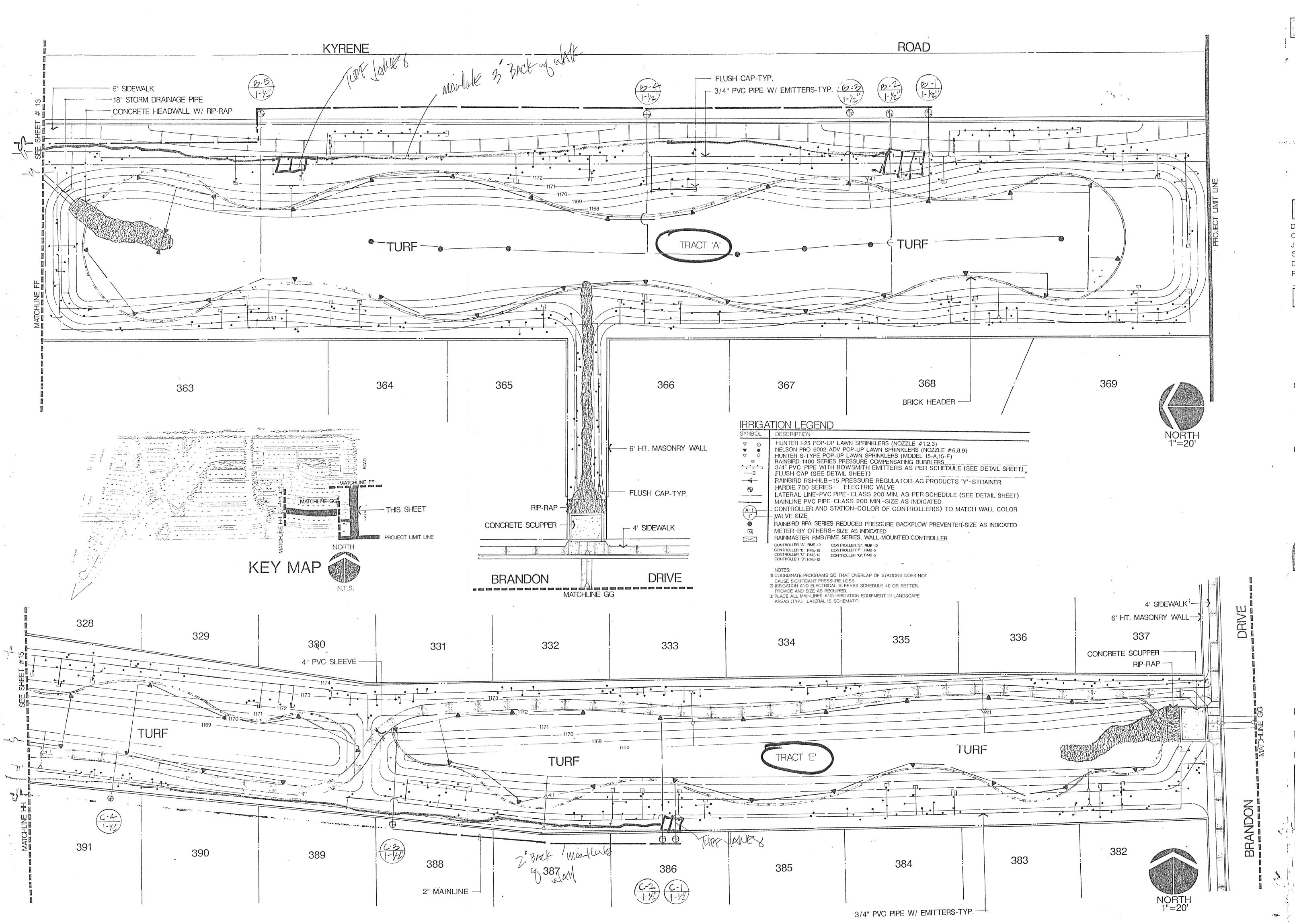
DRAWN NR
CHECKED JR
JOB NO.
SCALE 1"=20'
DATE NOV.4,1992
REVISION FEB.15,1993

LOCATED IN: CHANDLER, ARIZONA
PREPARED FOR: UDC HOMES, L.P.

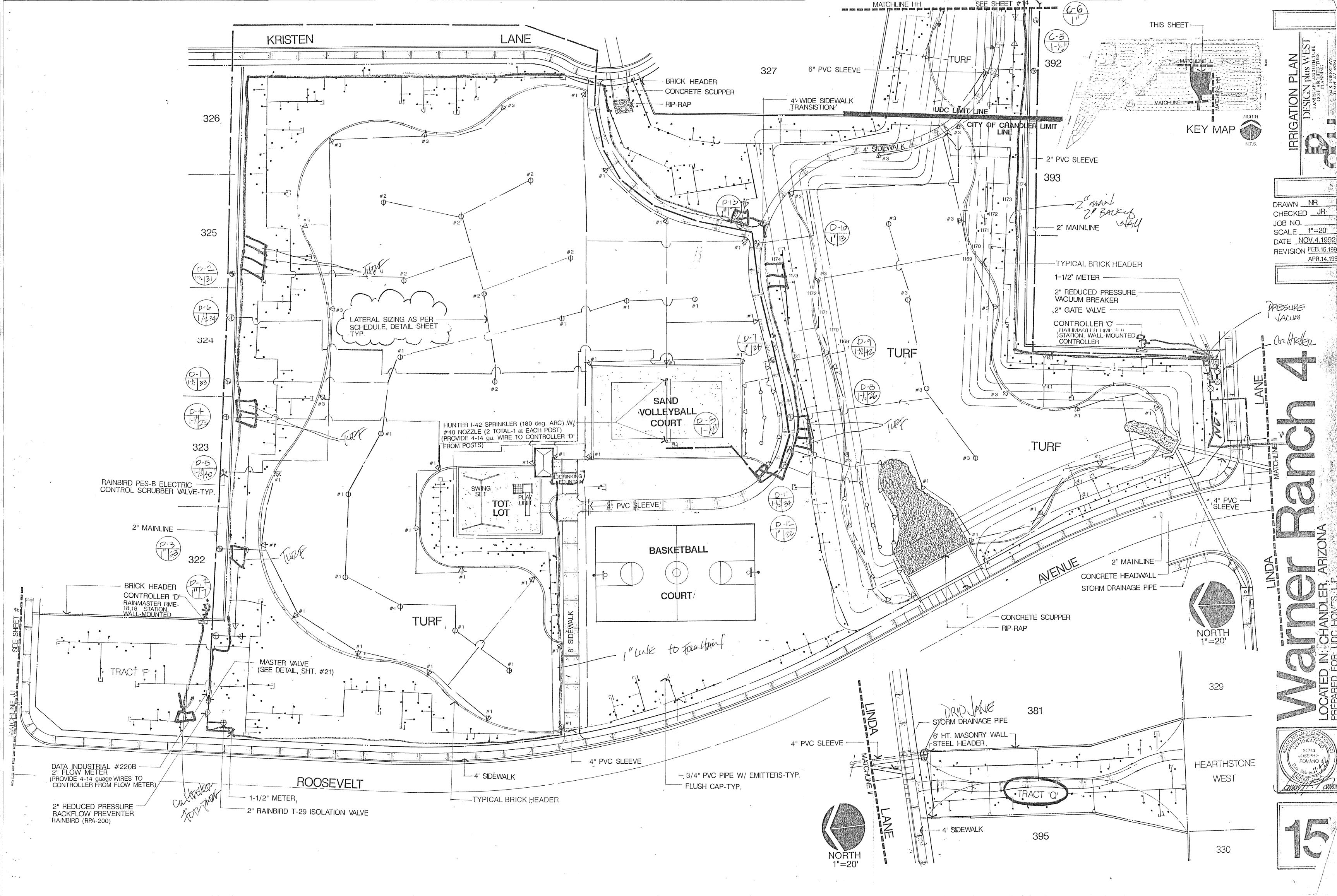
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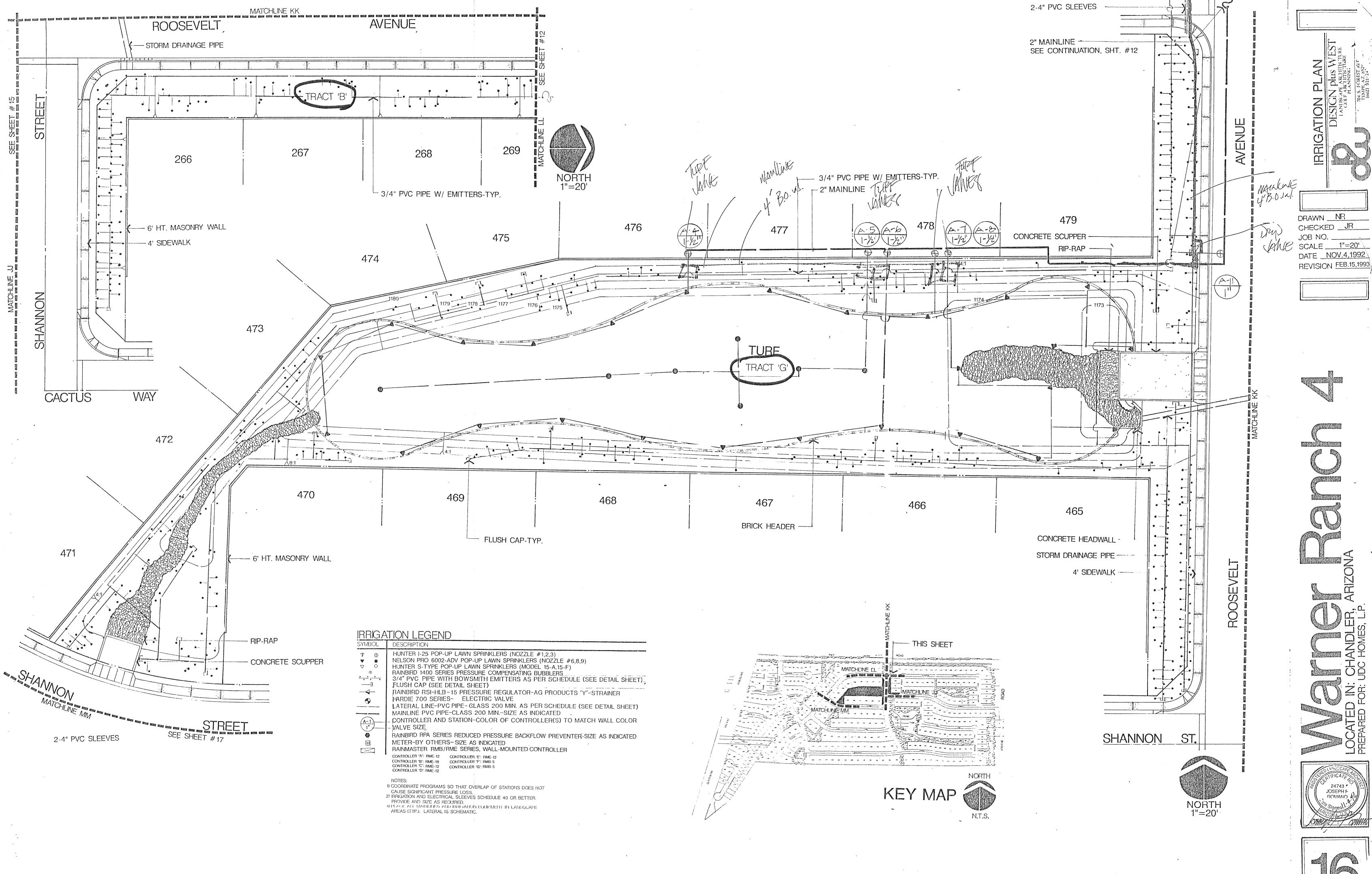


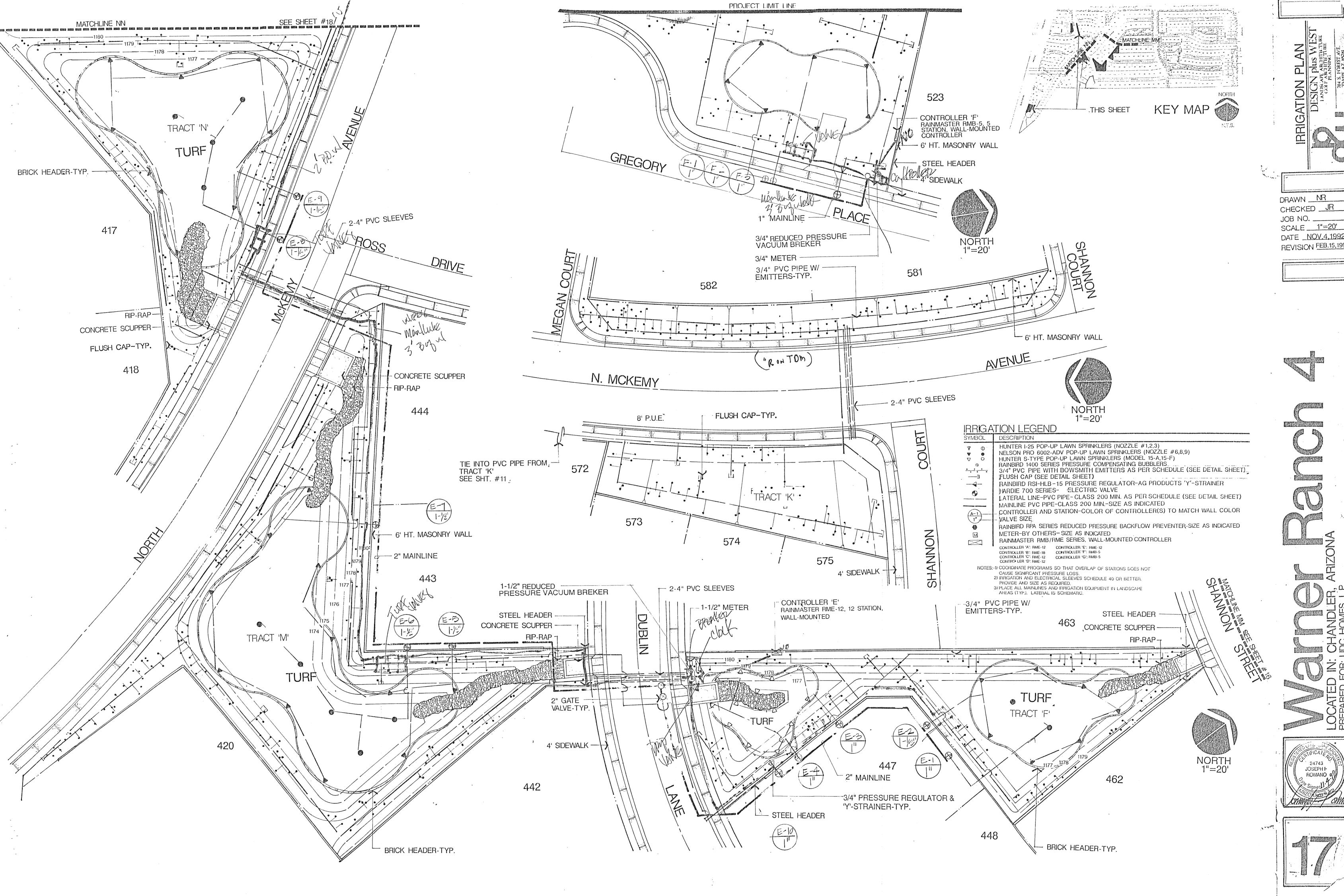
2" GATE VALVE-TYP!



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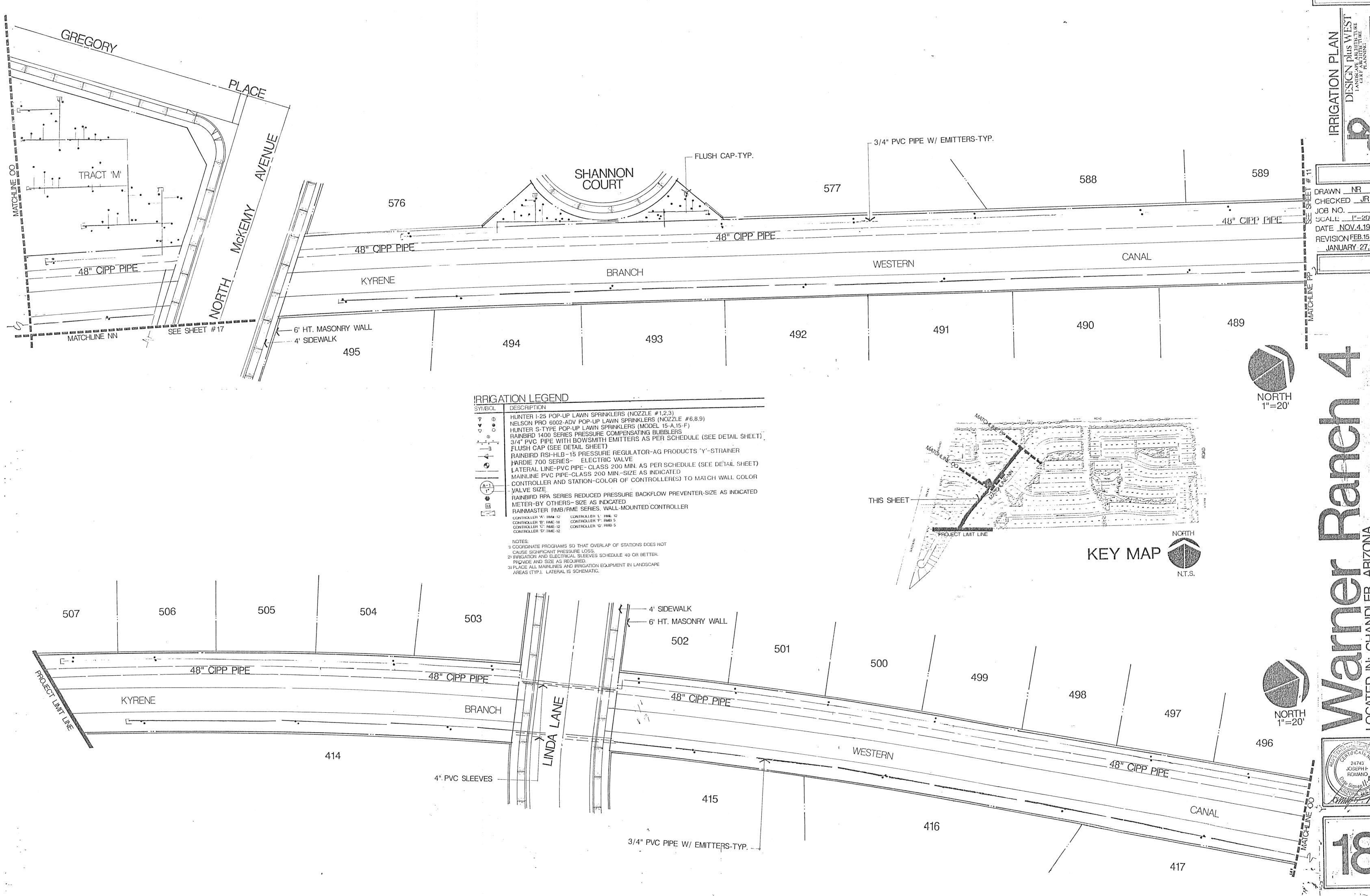




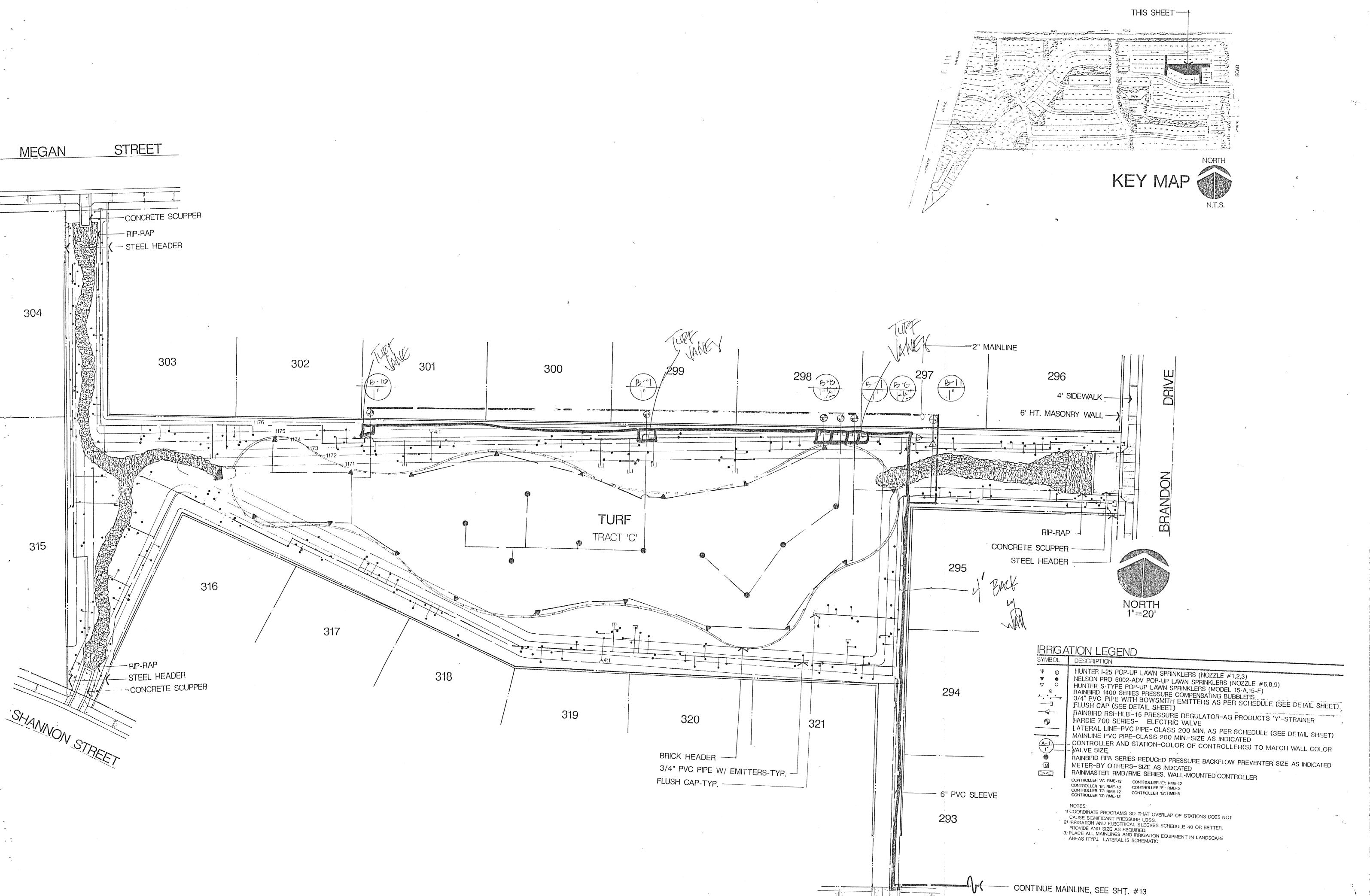


JOB NO. \_\_\_\_\_ SCALE \_\_1"=20' DATE NOV.4.1992 REVISION FEB.15,1993





CHECKED JR DATE NOV.4,1992 REVISION FEB.15,1993 JANUARY 27,1994



SHANNON STREET

BRIGATION PLAN

DESIGN PLAN

LANDSCAPE ARCHITECTURE

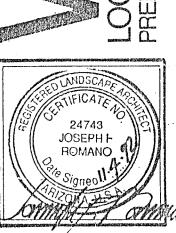
COLIT ARCHITECTURE

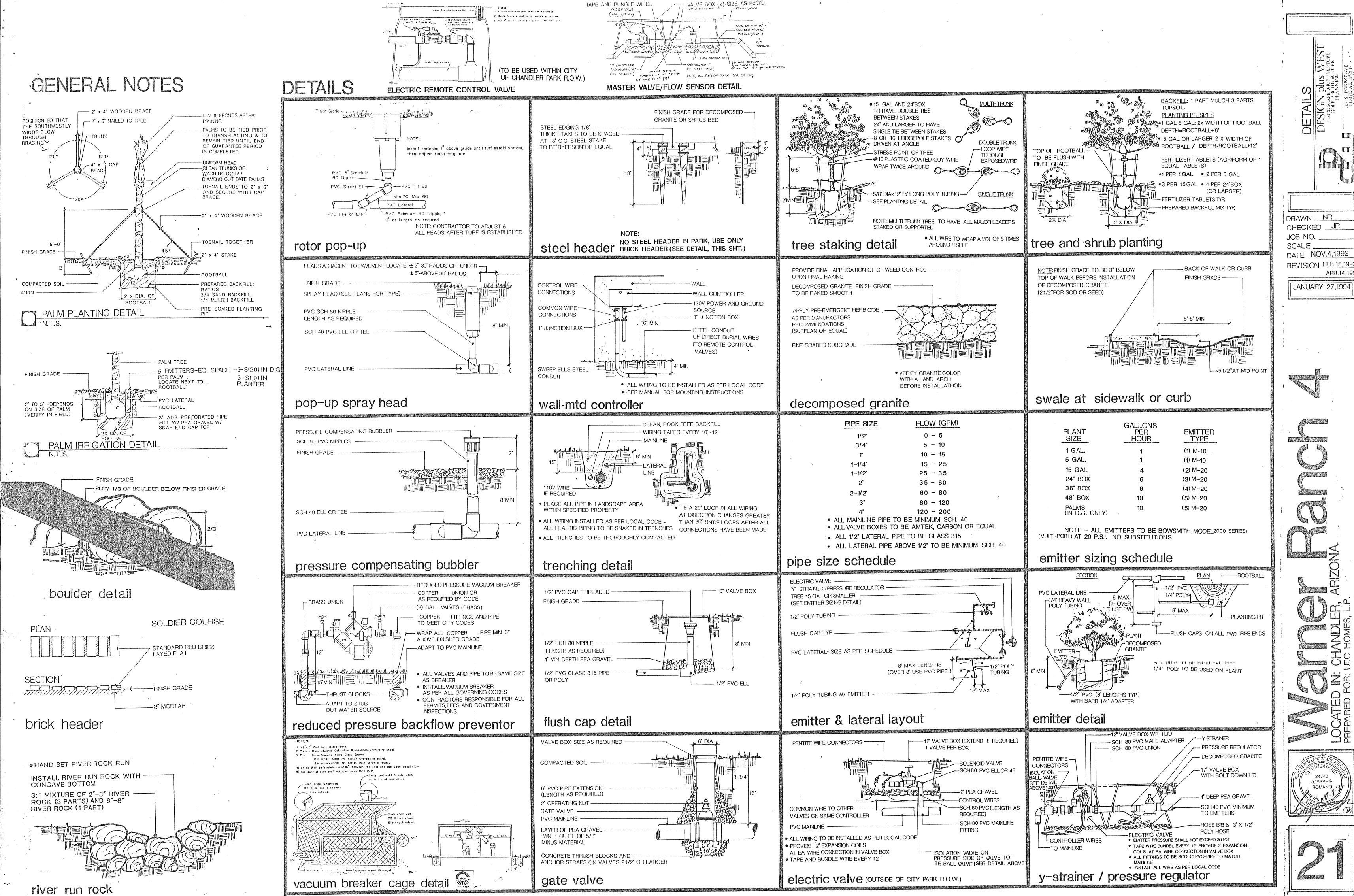
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THAINE ACCUSANCE.

DRAWN NR
CHECKED JR
JOB NO. \_\_\_\_
SCALE 1"=20'
DATE NOV.4,1992
REVISION FEB.15,1993

LOCATED IN: CHANDLER, ARIZONA





DRAWN NR CHECKED JR SCALE. DATE NOV.4,1992

> APR.14,19 JANUARY 27,1994

JOSEPH F

SECTION IV - IRRIGATION SYSTEM

SECTION V - DECOMPOSED GRANITE GROUND COVER SECTION VI - SOD INSTALLATION

SECTION VII - LAWN CONSTRUCTION

## SECTIONI GENERAL CONDITIONS

# . DEFINITIONS

THE PERSON, FIRM, OR COPPORATION WITH A. "CONTRACTOR" WHOM THE LANDSCAPE CONTRACT IS MADE BY THE OWNER.

B "LANDSCAPE

AN AUTHORIZED REPRESENTATIVE DESIGN PLUS WEST HEREAFTER ARCHITECT\* REFERRED TO AS LANDSCAPE APCHITECT

ANY PERSON, FIRM, OR CORPORATION OTHER T. \*SUB-CONTRACTOR\* THAN EMPLOYEE OF THE CONTRACTOR. SUPPLYING FOR AN UNDERAGREEMENT WITH EITHER THE CONTRACTOR, LABOR OR MATERIALS OR BOTH AT THE PROJECT SITE IN CONNECTION WITH THIS CONTRACT.

D. "OWNER" UDC HOMES, L.P. LABOR, OR MATERIALS OR BOTH: OR THE E. "WORK"

COMPLETE CONTRACT WORK CODES, PERMITS AND INSURANCE

A. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROCURE ALL PERMITS, CERTIFICATES, AND LICENSES REQUIRED OF HIS BY LAW FOR THE EXECUTION OF HIS WORK HE SHALL ALSO COMPLY WITH ALL STATE, COUNTY, OR LOCAL LAWS, ORDINANCES, RULES OR REGULATIONS RELATING TO THE PERFORMANCE OF HIS WORK.

B. THE CONTRACTOR SHALL, AT ALL TIMES DURING PROGRESS OF THE WORK, CARRY WITH INSURANCE CARRIERS (APPROVED BY THE OWNER) THE FOLLOWING INSURANCE AS A MINIMUM

1) WORKMAN'S COMPENSATION AS REQUIRED BY STATE AND

2) EMPLOYERS LIABILITY INSURANCE \$1,000,000

3) COMPREHENSIVE GENERAL LIABILITY A) BODILY INJURY \$500,000

B) PROPERTY DAMAGE LIABILITY \$500,000

4) COMPREHENSIVE AUTO LIABILITY INSURANCE A) BODILY INJURY \$500,000.

B) PROPERTY DAMAGE LIABILITY \$500,000

# CONTRACTOR'S RESPONSIBILITY

A. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR THE SAFEKEEPING OF ALL MATERIALS, THE EQUIPMENT AND FOR THE PROTECTION ON ALL UNFINISHED WORK UNTIL FINAL ACCEPTANCE BY THE OWNER IF ANY OF THE WORK IS DAMAGED OR DESTROYED FROM ANY CAUSE, THE CONTRACTOR SHALL REPLACE IT AT HIS OWN EXPENSE. THE CONTRACTOR MUST INDEMNIES AND SAVE HARMLESS THE OWNER AGAINST ANY CLAIMS FILED FOR NON-PAYMENT OF HIS BILLS FOR SUB-CONTRACTORS, LABOR AND MATERIALS USED IN CONNECTION WITH THE CONTRACT WORK

B. THE CONTRACTOR SHALL FULLY COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND/OR THE OWNER'S REPRESENTATIVE.

WORK INCLUDES THE FURNISHING OF ALL LABOR, MATERIAL, EQUIPMENT AND SERVICES NECESSARY TO COMPLETE WORK FOR SECTIONS AS INDICATED ON THE DRAWING AND AS SPECIFIED AND NECESSARY TO COMPLETE THE CONSTRUCTION OF DECOMPOSED GRANITE GROUND COVER, LAWN AREAS, PLANT MATERIAL AND IRRIGATION EQUIPMENT.

# REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

A ALL WORK WHICH HAS BEEN REJECTED, BECAUSE OF NON-COMPLIANCE TO PLANS AND SPECIFICATIONS, SHALL BE REMEDIED OR REMOVED AND REPLACED IN AN ACCEPTABLE MANNER BY THE CONTRACTOR AT HIS OWN EXPENSE AND NO COMPENSATION SHALL. BE ALLOWED FOR SUCH REMOVAL OR REPLACEMENT

# COMMENCEMENT, PROSECUTION, AND COMPLETION OF

A. THE CONTRACTOR WILL BE REQUIRED TO COMMENCE WORK UNDER THIS CONTRACT WITHIN TEN (10) CALENDAR DAYS AFTER THE DATE OF THE CONTRACT TO PROSECUTE THE WORK WITH FAITHFULNESS AND ENERGY, AND TO COMPLETE THE ENTIRE WORK READY FOR USE NOT LATER THAN 45 DAYS AFTER THE DATE. OF THE CONTRACT

A. THE CONTRACTOR SHALL BE COGNIZANT OF THE NUISANCE AND INCONVENIENCE EXCESSIVE BLOWING OF DUST, DIRT, OR REFUSE CAN CAUSE TO ADJACENT PROPERTIES AND TO PUBLIC AREAS AND SHALL INSTITUTE MEASURES TO CONTROL THESE PROBLEMS SO THAT THEY ARE NOT OBJECTIONABLE IN THE OPINION OF THE OWNER OR LANDSCAPE ARCHITECT

# GUARANTEE OF WORK

A EXCEPT AS SPECIFICALLY PROVIDED OTHERWISE, THE CONTRACTOR SHALL GUARANTEE ALL WORK AGAINST DEFECTIVE MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE OF YEAR THE REST OF THE COOK OF THE OWN OF THE CONTROL OF

B. DEFECTIVE WORK REQUIRING PUPLACEMENT OF REPAIR SHALL BE DONE IMMEDIATELY BY THE CONTRACTOR AT HIS OWN EXPENSE IN CASE OF FAILURE OF THE CONTRACTOR TO MAKE SUCH CHANGES OF MAKE SUCH REPLACEMENT, THE OWNER SHALL HAVE THE PRIVILEGE OF MAKING SUCH CORRECTIONS. THE OWNER WILL WITHHOLD FROM ANY MONEY DUE THE CONTRACTOR UNDER HIS CONTRACT, AN AMOUNT FOUAL TO THE EXPENSE SO INCURRED IN CASE THIS EXPENSE IS IN EXCESS OF ANY BALANCE DUE SAID CONTRACTOR UNDER THIS CONTRACT, HE SHALL PAY THE AMOUNT OF SUCH EXCESS TO THE OWNER

C. REPLACEMENT AND PEPAIR ACTION BY THE OWNER MAY TAKE PLACE WITHIN FIVE (5) DAYS AFTER WRITTEN NOTICE BY THE OWNER TO THE CONTRACTOR, WHEN NO ACTION HAS BLIN SHOWN BY THE CONTRACTOR

#### OWNER'S RIGHT TO TERMINATE CONTRACT A, IF THE CONTRACTOR SHALL BE ADJUDGED A BANKRUPT, OR IF HE

SHOULD MAKE A GENERAL ASSIGNMENT FOR THE BENEFIT OF HIS CREDITORS, OR IF A RECEIVER SHOULD BE APPOINTED ON ACCOUNT OF HIS INSOLVENCY, OR IF HE SHOULD PERSISTENTLY OP REPEATEDLY REFUSE OR SHOULD FAIL TO COMPLY TO PLANS AND SPECIFICATIONS, EXCEPT IN CASES FOR WHICH EXTENSION OF TIME IS PROVIDED TO SUPPLY ENOUGH PROPERLY SKILLED WORKMEN OR PROPER MATERIALS, OR IF HE SHOULD FAIL TO MAKE PROMPT PAYMENT TO SUB-CONTRACTORS FOR LABOR OR MATERIALS, OR PERSISTENTLY DISREGARD LAWS, ORDINANCES, OF THE INSTRUCTIONS OF THE LANDSCAPE ARCHITECT OR OTHERWISE BE GUILTY OF A SUBSTANTIAL VIOLATION OF ANY PROVISION OF THE CONTRACT, THEN THE OWNER MAY, WITHOUT PREJUDICE TO ANY OTHER RIGHT OR REMEDY AND AFTER GIVING THE CONTRACTOR AND HIS SURETY, IF ANY, SEVEN (7) DAYS WRITTEN NOTICE, TERMINATE THE EMPLOYMENT OF THE CONTRACTOR AND TAKE POSSESSION OF THE PREMISES OF ALL MATERIALS, TOOLS AND APPLIANCE THEREON AND FINISH THE WORK BY WHATEVER METHOD HE MAY DEFM EXPEDIENT. IN SUCH CASE, THE CONTRACTOR SHALL NOT BE ENTITLED TO RECEIVE ANY FURTHER PAYMENT UNTIL THE WORK IS FINISHED. IF THE UNPAID BALANCE OF THE CONTRACT PARICE SHALL EXCEED THE EXPENSE OF FINISHING THE WORK INCLUDING COMPENSATION FOR ADDITIONAL ENGINEERING, MANAGERIAL AND ADMINISTRATION EXPENSES

SUCH EXCESS SHALL BE PAID TO THE CONTRACTOR I IF SUCH

EXPENSE SHALL EXCEED SUCH UNPAID BALANCE, THE

A THE OWNER SHALL HAVE THE RIGHT TO MAKE SUCH ALTERATIONS, ELIMINATIONS, AND ADDITIONS IN THE WORK HEREIN CONTEMPLATED OR REQUIRE EXTRA WORK AS IT SHALL FIND NECESSARY, IN ORDER TO BEST ACCOMPLISH THE OBJECT AND PURPOSE THEREOF, AND THE SAME SHALL IN NO WAY AFFECT OR MAKE VOID THE CONTRACT NOR RELEASE THE SURETY OR SURETIES ON ANY BOND OF BONDS GIVEN TO ENSURE THE PERFORMANCE THEREOF TO PROTECT LABORERS OR MATERIALS MEN, AND THE COST THEREOF SHALL BE BDEDUCTED FROM OR

ADDED TO THE CONTRACT PRICE AS THE CASE MAY BE

CONTRACTOR SHALL PAY THE DIFFERENCE TO THE OWNER

B ALL DEDUCTIONS OR ADDITIONS WILL BE MADE THROUGH A CHANGE ORDER ISSUED BY THE LANDSCAPE ARCHITECT OR AUTHORIZED OWNER'S REPRESENTATIVE. CHANGES MADE WITHOUT CHANGE ORDERS ARE NOT CONSIDERED PART OF THE CONTRACT AND PAYMENT CANNOT BE GUARANTEED.

#### 10 SITE INVESTIGATION

A CONTRACTOR ACKNOWLEDGES THAT HE HAS SATISFIED HIMSELF AS TO THE NATURE AND LOCATION OF THE WORK, THE GENERAL AND LOCAL CONDITIONS, PARTICULARLY THOSE BEARING UPON TRANSPORTATION, DISPOSAL, HANDLING AND STORAGE OF MATERIALS, AVAILABILITY OF LABOR, WATER, ELECTRIC POWER, ROADS, AND UNCERTAINTIES OF WEATHER, THE CONFORMATION AND SURFACE AND SUBSURFACE MATERIALS TO BE ENCOUNTERED. THE CHARACTER OF FQUIPMENT AND FACILITIES NEEDED PRELIMINARY TO AND DURING THE PROSECUTION OF THE WORK, AND ALL OTHER MATTERS WHICH CAN IN ANY WAY AFFECT THE WORK OR THE COST THEREOF UNDER THIS CONTRACT ANY FAILURE BY THE CONTRACTOR TO ACQUAINT HIMSELF WITH ALL THE AVAILABLE INFORMATION CONCERNING THESE CONDITIONS WILL NOT RELIEVE HIM FROM THE RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK

#### SECTION II SPECIAL CONDITIONS

GENERAL

#### A. ALL PROVISIONS OF SECTION 1 SHALL APPLY TO THIS SECTION

A. CONTRACT WORK WILL BE PERFORMED AT: WARNER RANCH 4,

#### RAY RD./KYRENE RD., CHANDLER AZ. EXAMINATION OF PREMISES

A THE CONTRACTOR SHALL VISIT THE SITE OF THE PROJECT AND SHALL FULLY ACQUAINT HIMSELF WITH THE CONDITIONS AS THEY EXIST SO THAT HE MAY FULLY UNDERSTAND THE FACILITY. DIFFICULTIES AND RESTRICTIONS ATTENDING THE EXECUTION OF

B. BIDDERS SHALL ALSO THOROUGHLY EXAMINE AND BE FAMILIAR. WITH THE DRAWINGS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS THE FAILURE OF THE CONTRACTOR TO OBTAIN, RECEIVE OR EXAMINE ANY ADDENDA TO THE PROPOSED CONTRACT DOCUMENTS, OR TO VISIT THE SITE AND ACQUAINT HIMSELF WITH THE CONDITIONS THERE EXISTING, SHALL IN NO WAY RELIEVE HIM FROM ANY OBLIGATION WITH RESPECT TO HIS

BY SUBMITTING A PROPOSAL, THE CONTRACTOR AGREES THAT HE HAS EXAMINED THE SITE, THE DRAWINGS, SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS AND ACCEPTS, WITHOUT RECOURSE, ALL SITE CONDITIONS AND THE PROPOSED CONTRACT DOCUMENTS

#### PROTECTION AND PRECAUTION

A THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR THAT PORTION OF THE SITE INVOLVED IN THE PROJECT WORK AND SHALL PROVIDE AND MAINTAIN ALL NECESSARY PROTECTION AS REQUIRED BY THE STATE AND LOCAL CODES, ORDINANCES OR CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE CAUSED TO WORK THAT IS NOT PROPERLY PROTECTED.

B. THE CONTRACTOR SHALL PROVIDE ENCLOSURES, DITCHES, OR DRAINS TO PROTECT INSTALLATIONS AND IMPROVEMENTS WITHIN THE WORKING AREA SUBJECT TO DAMAGE BY WEATHER CONDITIONS, AND SHALL REPAIR OR REPLACE ANY DAMAGED STRUCTURES OR IMPROVEMENTS

. ANY DAMAGE INCURRED TO EXISTING STRUCTURES OR INSTALLATIONS BY THE CONTRACTOR OR SUB-CONTRACTOR WILL BE REPLACED AND REPAIRED TO ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE TO THE APPROVAL OF THE OWNER OR HIS REPRESENTATIVE

A. OBSTRUCTION, IF ENCOUNTERED, SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT CLEAN UP OF TRASH, DEBRIS, OR OTHER OBSTRUCTIONS RESULTING FROM WORK PERFORMED BY OTHER TRADES IS NOT THE RESPONSIBILITY OF THE CONTRACTOR

# A INSPECTION OF WORK FOR COMPLIANCE WITH CITY AND COUNTY

CODES AND STANDARDS SHALL BE BY THE CITY AND COUNTY INSPECTORS B CONTRACTOR WILL NOTIFY LANDSCAPE ARCHITECT UPON COMPLETION OF CONTRACT TWO (2) DAYS PRIOR TO REQUESTED

# CLEANING

A THE CONTRACTOR, EACH WEEK OR AS REQUIRED, SHALL REMOVE DEBRIS, WASTE, RUBBISH OR UNUSED CONSTRUCTION MATERIALS FROM THE PROJECT AREAS RESULTING FROM WORK UNDER THIS

# WORKMANSHIP

A THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING COMPETENT WORKMEN ALL WORK SHALL BE UNDERTAKEN AND FINISHED IN QUALITY WORKMANSHIP - ANY WORK THAT DOES NOT SHOW QUALITY WORKMANSHIP BY SKILLED WORKMEN, IN THE OPINION OF THE LANDSCAPE ARCHITECT SHALL BE REPLACED OR REPAIRED AS DIRECTED BY THE LANDSCAPE ARCHITECT AND AT THE CONTRACTOR'S EXPENSE

# MAINTENANCE PERIOD AND FINAL PAYMENT

A THE CONTRACTOR AFTER FINAL ACCEPTANCE OF PROJECT BY 90 DAYS MAINTENANCE OWNER. SHALL PROVIDE MAINTENANCE SHALL CONSIST OF ALL OPERATIONS NECESSARY OR REQUIRED TO MAINTAIN THE PROJECT OR AS CALLED OUT IN EACH MAINTENANCE SECTION OF THIS SPECIFICATION THE CONTRACT RETENTION SHALL BE RELEASED TO THE CONTRACTOR AFTER THE 90 DAY MAINTENANCE PERIOD AND WHEN THE PROJECT IS IN ACCEPTABLE CONDITION

 ALTER 90 DAYS A FINAL INSPECTION SHALL BE PERFORMED BY THE LANDSCAPE ARCHITECT BEFORE AND FINAL RETENTION MONIES ARE RELEASED

# SECTION III

PLANTING OF TREES, SHRUBS, AND GROUND COVERS

#### A ALL PROVISIONS OF SECTIONS 1 AND 2 SHALL APPLY TO THIS SECTION

A. HUMUS SHALL BE APPROVED FOREST HUMUS OR PEAT MOSS, OF OTHER APPROVED ORGANIC MATERIAL FREE FROM STICKS, STONES, ROOTS, OR OTHER FOREIGN MATTER DELIVERY TICKETS OF PROPER QUANTITY OF HUMUS TO SITE WILL BE MADE AVAILABLE TO THE LANDSCAPE ARCHITECT UPON REQUEST

MATERIAL FOR STAKING STAKES SHALL BE 2" x 2"x 8" REDWOOD OR 2º DIAMETER X 8º LODGEPOLE PINE, FREE OF ANY KNOTS OR DEFECTS, STAKES AND STAKING SHALL BE AS SHOWN ON THE TREE PLANTING DETAIL WIRE FOR FASTENING TREES TO STAKES SHALL BE NO. 12 GAUGE. ANNEALED GALVANIZED STEEL, NOT IRON. HOSE TO ENCASE WIRES USED FOR FASTENING TREES TO STAKES SHALL BE 2-PLY REINFORCED RUBBER OR PLASTIC GARDEN HOSE IN LENGTHS OF TWELVE (12) INCHES MINIMUM

STAPLES SHALL BE #14 GAUGE, 1" LONG, BLUFD OR ZINC COATED. PREPARED BACKFILL: SHALL BE COMPOSED OF THREE (3) PARTS OF NATIVE SOILS TO ONE (I) PART OF HUMUS BY VOLUME, THOROUGHLY MIXED TO ENSURE UNIFORMITY NATIVE SOIL SHALL BE NATURAL, FERTILE, FRIABLE SOIL WHICH POSSESSES THE CHARACTERISTICS OF REPRESENTATIVE PRODUCTIVE SOILS IN THE VICINITY, SHALL NOT BE EXCESSIVELY ACID OR ALKALINE, NOR CONTAIN TOXIC SUBSTANCES HARMFUL TO PLANT GROWTH, SHALL BE WITHOUT ADMIXTURE OF SUBSOIL, AND BE REASONABLY FREE OF NOXIOUS WEEDS, CLAY LUMPS, CLODS, STONES, ROOTS, STUMPS, AND DEBRIS OF ANY KIND

D. WATER USED IN PLANTING SHALL BE KEPT FREE FROM OIL. ACIDS, ALKALI, SALT AND OTHER SUBSTANCES HARMFUL TO PLANT GROWTH

UNLESS OTHERWISE INDICATED, ALL PLANT MATERIALS FURNISHED SHALL BE NURSERY GROWN, WELL BRANCHED, AND WELL PROPORTIONED ALL PLANTS ARE SUBJECT TO INSPECTION AND APPROVAL BY LANDSCAPE ARCHITECT BEFORE PLANTING. WHEREUPON ALL PLANTS FOUND UNSUITABLE IN GROWTH OR CONDITION, OR WHICH ARE NOT TRUE TO NAME, SHALL BE THE CORRECT PLANT NAME AND SIZE, AS SPECIFIED IN THE PLANT LIST, SHALL BE SECURELY ATTACHED TO ALL PLANTS, BUNDLES, AND CONTAINERS OF PLANT MATERIAL DELIVERED TO THE SITE

QUALITY AND SIZE: PLANTS SHALL BE IN ACCORDANCE WITH RULES FOR GRADING INCLUDED IN THE "AMERICAN STANDARD FOR NURSERY STOCK," 1959 EDITION AND "STANDARDIZED PLANT NAMES," 1942 EDITION. ALL PLANTS SHALL HAVE A NORMAL HABIT OR GROWTH AND SHALL BE SOUND, HEALTHY, VIGOROUS, AND FREE FROM DISEASE AND INSECT INFESTATIONS. TREES SHALL HAVE A STRAIGHT TRUNK THROUGHOUT THEIR HEIGHT. AND ANY TREE WITH A WEAK, THIN TRUNK NOT CAPABLE OF SUPPORTING ITSELF WHEN PLANTED IN THE OPEN SHALL NOT BE ACCEPTED. THE MINIMUM ACCEPTABLE SIZE OF ALL PLANTS MEASURED BEFORE PRUNING, WITH BRANCHES IN NORMAL POSITION, SHALL CONFORM TO THE MEASUREMENTS SPECIFIED IN THE PLANT LIST. PLANTS LARGER IN SIZE THAN SPECIFIED MAY BE USED, BUT THE USE OF LARGER PLANTS WILL NOT AFFECT THE CONTRACT PRICE. IF LARGER PLANTS ARE USED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED PROPORTIONATELY

CONTAINER-GROWN PLANTS: SHALL HAVE BEEN GROWN IN POTS CANS, TUBS, OR BOXES FOR A MINIMUM OF THREE MONTHS AND A MAXIMUM OF ONE YEAR. THEY SHALL HAVE SUFFICIENT ROOTS TO HOLD EARTH INTACT AFTER REMOVAL FROM CONTAINERS, BUT SHALL NOT BE ROOTBOUND. PLANTS SHALL BE CAREFULLY REMOVED FROM CONTAINERS SO AS TO PREVENT BREAKING OR CRACKING OF EARTH DURING THE PLANTING PROCESSES.

E. INSPECTION OF PLANT MATERIALS MAY BE REQUIRED AT SOURCES PRIOR TO SHIPMENT. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT PRIOR TO SHIPMENT, AFTER QUANTITIES ARE LOCATED LANDSCAPE ARCHITECT WILL GENERALLY APPROVE ALL BOXED MATERIALS AT SOURCE.

### PLANTS REQUIRED

A. THE SPECIES (SCIENTIFIC AND COMMON NAMES), SIZES, MANNER IN WHICH TO BE FURNISHED, AND THE APPROXIMATE NUMBER REQUIRED, ARE GIVEN IN THE PLANT LIST. FLANT OUANTITIES ON THE LIST ARE INDICATED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR THE CONTRACTOR SHALL FURNISH AND INSTALL ALL PLANT MATERIAL NECESSARY TO COMPLETE THE PLANTING S SHOWN ON THE LANDSCAPE PLAN. SURPLUSES OR SHORTAGES ON THE PLANT LIST SHALL NOT BE USED FOR ADDITIONAL CLAIMS TO THE OWNER.

B PROTECTION AFTER DELIVERY: UPON DELIVERY TO THE SITE, ALL NURSERY STOCK SHALL BE PLANTED AS SOON AS POSSIBLE. UNTIL PLANTING, PLANTS SHALL NOT BE EXPOSED TO EXCESSIVE SUN OR DRYING WINDS. STOCK WHICH IS NOT SATISFACTORY IN THE OPINION OF THE LANDSCAPE ARCHITECT SHALL BE IMMEDIATELY REMOVED FROM THE SITE AT THE CONTRACTOR'S EXPENSE AND REPLACED WITH ACCEPTABLE STOCK.

## OBSTRUCTIONS BELOW GROUND

A ANY ROCK OR OTHER UNDERGROUND OBSTRUCTIONS SHALL BE REMOVED, IF POSSIBLE, TO THE DEPTH NECESSARY TO PERMIT PROPER PLANTING, ACCORDING TO PLANS AND SPECIFICATIONS IF UNDERGROUND CONSTRUCTION, OBSTRUCTIONS, OR ROCK ARE ENCOUNTERED IN THE EXCAVATION OF PLANTING AREAS, OTHER LOCATIONS FOR THE PLANTING MAY BE SELECTED BY THE CONTRACTOR ONLY UPON APPROVAL OF THE LANDSCAPE ARCHITECT PRIOR TO ANY WORK, THE CONTRACTOR MUST BE KNOWLEDGEABLE OF THE LOCATIONS OF ALL EXISTING UNDERGROUND INSTALLATIONS, AND THEIR PROTECTION IS HIS RESPONSIBILITY ALL DAMAGE WILL BE CORRECTED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.

## PLANTING OPERATIONS

A CONTRACTOR WILL RECEIVE ALL PLANTING AREAS AT A GRADE 1/10 OF A FOOT PLUS OR MINUS. CONTRACTOR IS RESPONSIBLE FOR FINE GRADE. CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR GRADING AT HEADER BOARDS, SIDEWALKS, OR OTHER PLANTING

B. PLANT LOCATIONS: PRIOR TO PLANTING, TREES AND SHRUBS IN CONTAINERS WILL BE LOCATED IN ACCORDANCE TO PLANTING PLAN FOR LOCATION APPROVAL BY LANDSCAPE ARCHITECT. FAILURE TO COMPLY WILL RESULT IN REMOVAL AND REPLACEMENT OF STOCK AT CONTRACTOR'S EXPENSE.

#### SEE PLANT LOCATION SCHEDULE ON DETAIL SHEET IN THE EVENT THAT IRRIGATION SHALL BE COORDINATED WITH THE LOCATION OF AN INDIVIDUAL PLANS, THE PLANTING CONTRACTOR SHALL STAKE THE PLANT LOCATIONS AS REQUIRED

TO COORDINATE THE PLANTING SCOPE OF WORK WITH THE IRRIGATION SCOPE OF WORK. EXCAVATION FOR PLANTING: THIS SHALL INCLUDE THE EXCAVATION AND STOCKPILING OF NATIVE SOIL. PLANTING PITS SHALL BE EXCAVATED TO A VOLUME TWICE THE SIZE OF ROOTBALL OF THE PLANT TO BE PLANTED.

D. FIRST BACKFILL: PLANTING PITS SHALL BE BACKFILLED WITH SUFFICIENT, THAT IN THE POTTING OF THE PLANT, THE FINIS GRADE LEVEL AFTER SETTLEMENT WILL BE THE SAME AS THAT AT WHICH PLANTS WERE GROWN.

E. SETTING PLANTS: PLANTS SHALL BE CAREFULLY REMOVED FROM CONTAINERS AND SET IN A MANNER SO AS TO ASSURE THAT THE ROOTBALL SHALL REMAIN INTACT AS A PART OF THIS OPERATION. PLANTS SHALL BE SET PLUMB AND FACED TO GIVE THE BEST APPEARANCE AND RELATIONSHIP TO ADJACENT PLANTS OR STRUCTURES. TREES SHALL BE BRACED, AS REQUIRED, IN POSITION UNTIL BACKFILLING OPERATIONS ARE COMPLETE.

FINAL BACKFILL AND FINE GRADING: BACKFILLING OPERATIONS OF PLANTING PITS SHALL BE COMPLETED WITH PREPARED BACKFILL. WHILE MAINTAINING THE PLUMB POSITION OF THE PLANT, THE SOIL SHALL BE THOROUGHLY TAMPED AND WATER SETTLED TO ELIMINATE ALL VOIDS IN THE BACKFILL. THE WELLS SHALL BE GRADED AND PLANTING AREA SHALL BE FINE GRADED.

G. GROUND COVER BED: WHERE PLUGS FROM FLATS ARE TO BE PLANTED, A 1" DEPTH OF HUMUS SHALL BE SPREAD OVER BED BEFORE PLANTING OPERATIONS. UPON RECEIVING APPROVAL OF THE BED FROM THE LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL CULTIVATE THE SOIL OF THE BED TO A MINIMUM DEPTH OF FOUR (4) INCHES. CULTIVATED AREAS SHALL BE DRAGGED AND RAKED, REMOVING ALL CLODS OR ROCKS ONE (1) INCH IN DIAMETER AND LARGER. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, PLUGS SHALL BE PLANTED IN A TRIANGULAR PATTERN WITH CENTER SPACING AS NOTED ON THE PLANS.

H. ANNUAL BEDS: ANNUAL BEDS SHALL BE L' DEEP AND CONTAIN BACKFILL MIXES OF 1 PARTS CLEAN EXISTING SOIL AND 2 PARTS HUMBIS AND 2 PARTS LIFAN MORTAR SAND

L. STAKING OF TREES: STAKING SHALL BE AS DESCRIBED ON THE DRAWINGS. THE CONTRACTOR MAY PROVIDE ADDITIONAL STAKING AT APPROVAL OF THE LANDSCAPE ARCHITECT FOR TREES NOT MEETING THE SPECIFICATION OF BEING SELF-SUPPORTING.

PRUNING: AFTER PLANTING, PLANTS SHALL BE PRUNED OF SUPERFLUOUS GROWTH AS DIRECTED BY LANDSCAPE ARCHITECT.

K. FERTILIZATION: ALL PLANT MATERIAL WILL RECEIVE BI-WEEKLY APPLICATION OF VITAMIN B-1 OR APPROVED ROOT STIMULATOR AT A MIXTURE RATE WITH WATER AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER. APPLICATIONS SHALL BE MADE AFTER PLANTING AND THROUGHOUT THE PERIOD BEFORE ACCEPTANCE, AND DURING ANY PRESCRIBED MAINTENANCE PERIOD AFTER MAINTENANCE.

A. ANY SOIL, HUMUS, OR OTHER MATERIAL DROPPED ONTO PAVED AREAS BY HAULING OPERATIONS OR OTHERWISE, SHALL BE REMOVED PROMPTLY, KEEPING THESE AREAS CLEAN AT ALL TIMES. UPON COMPLETION OF PLANTING, ALL EXCESS SOIL, STONES, AND DEBRIS, NOT THEREFORE DISPOSED OF UNDER THIS SCOPE OF WORK, SHALL BE REMOVED FROM THE SITE OF DISPOSED OF, AS DIRECTED BY THE OWNER.

# PLANT GUARANTEE AND REPLACEMENT

A GUARANTEE: THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL TO BE IN VIGOROUS, HEALTHY CONDITION FOR A MINIMUM PERIOD OF NINETY (90) DAYS FROM THE DATE OF FINAL ACCEPTANCE OR REPLACEMENT, AND SHALL GUARANTEE TO REPLACE ANY PLANT MATERIAL WHICH PROVES TO BE NOT TRUE TO NAME.

REGARDLESS OF THE LENGTH OF TIME IT TAKES TO MAKE THIS B REPLACEMENT: AT ANY TIME DURING THE CONSTRUCTION. DURING THE MAINTENANCE PERIOD, OR AT THE END OF THE GUARANTEE PERIOD, ANY PLANT REQUIRED UNDER THIS SPECIFICATION WHICH IS DEAD, OR OTHERWISE NOT ACCEPTABLE AND NOT IN A SATISFACTORY GROWING CONDITION IN THE OPINION OF THE LANDSCAPE ARCHITECT, SHALL BE REMOVED

FROM THE SITE AND REPLACED WITH A SUITABLE PLANT AS

#### SPECIFIED, WITHIN SEVEN (7) DAYS. MAINTENANCE

A. THE CONTRACTOR SHALL MAINTAIN ALL TREES, SHRUBS, AND GROUND COVER UNTIL ACCEPTANCE OF THE COMPLETED PROJECT IS MADE BY THE OWNER. THIS MAINTENANCE SHALL INCLUDE LABOR, EQUIPMENT, AND MATERIAL REQUIRED FOR WATERING WEEDING, AND GENERAL CARE TO ENSURE THE HEALTHY GROWTH OF ALL PLANT MATERIALS

B. AFTER FINAL ACCEPTANCE OF THE IRRIGATION SYSTEM, THE PLANTING CONTRACTOR SHALL MAKE TIMING AND FLOW ADJUSTMENTS ON THE IRRIGATION SYSTEM AS REQUIRED TO PROPERLY ESTABLISH AND MAINTAIN THE PLANT MATERIAL THROUGH THE CONSTRUCTION PERIOD AND ANY CONTRACTED MAINTENANCE PERIOD AFTER FINAL ACCEPTANCE. DURING THIS PERIOD THE PLANTING CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING REPAIRS TO THE SYSTEM WHEN SUCH REPAIR IS REQUIRED AS A RESULT OF THE MAINTENANCE OPERATIONS

# SECTION.

A. SPRINKLER SYSTEMS SHALL BE CONSTRUCTED TO THE SIZES. GRADES AND LOCATIONS SHOWN ON THE PLANS. SPRINKLER LINES SHOWN ON THE PLANS ARE ESSENTIALLY DIAGRAMMATIC. LOCATIONS OF ALL SPRINKLER HEADS, SHRUB HEADS, ETC., SHALL BE ESTABLISHED BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION. TYPICAL SPACINGS OF THE SPRINKLER HEADS ARE SHOWN ON THE IPLANS AND SHALL NOT BE EXCEEDED.

B. UNLESS OTHERWISE SPECIFIED, THE CONSTRUCTION OF SPRINKLER SYSTEMS SHALL INCLUDE THE FURNISHING, INSTALLING AND TESTING OF ALL NECESSARY EQUIPMENT, THE REMOVAL AND/OR RESTORATION OF EXISTING IMPROVEMENTS, EXCAVATION AND BACKFILL, AND ALL OTHER WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS

SECTION IV

IRRIGATION SYSTEM

A. ALL PROVISIONS OF SECTIONS 1 AND 2 SHALL APPLY TO THIS

C. IT IS HERE SPECIFIED THAT THE SYSTEM SHALL BE A COMPLETE. OPERATIVE SYSTEM GIVING 100 PERCENT COVERAGE TO ALL PLANTS AND PLANTED AREAS SYSTEM SHOULD BE PROPERLY ADJUSTED AND AVOID OVER-SPRAY UNTO WALK, ROADS, AND BUILDING SURFACES.

# EXAMINATION AND VERIFICATION OF DRAWINGS AND

LIT SHALL BE THE CONTRACTING INSTALLER'S RESPONSIBILITY TO REPORT TO THE OWNER OR THE LANDSCAPE ARCHITECT ANY DEVIATIONS BETWEEN IRRIGATION DRAWINGS, SPECIFICATIONS AND THE SITE FAILURE TO DO SO PRIOR TO THE INSTALLING OF EQUIPMENT, RESULTING IN REPLACING AND/OR RELOCATING EQUIPMENT, SHALL BE DONE AT THE CONTRACTOR'S EXPENSE

WHENEVER ANY MATERIAL IS SPECIFIED BY NAME AND/OR NUMBER THEREOF, SUCH SPECIFICATIONS SHALL BE DEEMED TO BE USED FOR THE PURPOSE OF FACILITATING A DESCRIPTION OF THE MATERIALS AND ESTABLISHING QUALITY, AND SHALL BE DEEMED AND CONSTRUED TO BE FOLLOWED BY THE WORKS "OR APPROVED EQUAL " NO SUBSTITUTIONS WILL BE PERMITTED WHICH HAVE NOT BEEN SUBMITTED FOR PRIOR APPROVAL FOR THE OWNER OR LANDSCAPE ARCHITECT

ALL MATERIALS SHALL BE NEW AND THE BEST OF THEIR CLASS AND KIND SUFFICIENT DESCRIPTIVE LITERATURE AND SAMPLES MUST BE FURNISHED FOR ANY MATERIALS SUBMITTED AS "EQUAL"

#### PERMITS AND INSPECTIONS

A. ANY REQUIRED PERMITS FOR THE INSTALLATION OR CONSTRUCTION OF ANY OF THE WORK INCLUDED UNDER THIS CONTRACT SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR. HE SHALL ALSO ARRANGE FOR AND PAY ALL COSTS IN CONNECTION WITH ANY INSPECTIONS AND EXAMINATIONS REQUIRED BY THESE AUTHORITIES.

3. WHERE INSPECTION OF THE SPRINKLER SYSTEM WORK IS REQUIRED BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL NOTIFY THE OWNER OR THE LANDSCAPE ARCHITECT AT LEAST 24 HOURS IN ADVANCE OF THE TIME WHEN SUCH INSPECTION AND/OR DIRECTION IS REQUIRED.

## RECORD DRAWINGS

THE CONTRACTOR SHALL PURCHASE FROM THE LANDSCAPE ARCHITECT ONE SET OF TRANSPARENCIES AND ONE SET OF BLUELINE PRINTS, SHOWING ALL SPRINKLER WORK REQUIRED UNDER THIS CONTRACT. IMMEDIATELY UPON INSTALLATION OF PIPING, VALVES, OR SPRINKLER HEADS, IN LOCATION OTHER THAN SHOWN, THE CONTRACT SHALL CLEARLY INDICATES SUCH CHANGES ON BOTH SETS. BEFORE FINAL ACCEPTANCE OF THE PROJECT, THESE SHALL BE TURNED OVER TO THE OWNER FOR RECORD PURPOSES.

ADDITIONS OR DELETIONS IN THE QUANTITY OF WORK AS SE

FORTH IN THESE SPECIFICATIONS AND ACCOMPANYING DRAWINGS

MAY BE ORDERED BY THE OWNER OR THE LANDSCAPE ARCHITECT

AFTER THE CONTRACT PRICE HAS BEEN ADJUSTED ACCORDINGLY

# THE SATISFACTION OF BOTH THE CONTRACTOR AND THE

CHANGES IN SCOPE OF WORK

OWNER AND THEY HAVE ACCEPTED IN WRITING BY THE OWNER ON A CHANGE ORDER FORM. CHANGES MADE WITHOUT CHANGE ORDERS ARE NOT CONSIDERED PART OF THE CONTRACT; PAYMENT CANNOT BE GUARANTEED. A. PLASTIC PIPE SHALL BE AS DESCRIBED ON THE DRAWINGS. I SHALL BE UNPLASTICIZED PVC EXTRUDED FROM VIRGIN PARENT MATERIALS OF THE TYPE SPECIFIED ON THE PLANS. THE PIPE

#### DENTS. IT SHALL BE MANUFACTURED BY JOHNS MANVILLE. CABOT, OR OTHER APPROVED MANUFACTURERS. 3. ALL PIPE SHALL BE CONTINUOUSLY AND PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION: MANUFACTURER'S NAME OR TRADEMARK, SIZE, SCHEDULE, AND TYPE OF PIPE WORKING

PRESSURE AT 73 DEGREES F., AND NATIONAL SANITATION

SHALL BE HOMOGENEOUS THROUGHOUT AND FREE FROM VISIBLE

CRACKS, HOLES, FOREIGN MATERIALS, BLISTERS, WRINKLES, AND

# PLASTIC PIPE FITTINGS AND CONNECTIONS

POLYTETHYLENE PIPE AND POLY DISTRIBUTION

FOUNDATION (N.S.F.) APPROVAL.

A. ALL PLASTIC PIPE FITTINGS TO BE INSTALLED SHALL BE MOLDED FITTINGS MANUFACTURED OF THE SAME MATERIALS AS THE PIPE AND SHALL BE SUITABLE FOR EITHER SOLVENT WELD OR SCREWED CONNECTIONS. NO FITTINGS MADE OF OTHER MATERIALS SHALL BE USED. FITTINGS SHALL BE MARKED WITH MANUFACTURER'S HALL OLDE SHILOSTIPHILE HIPTIPH STEAM

B. SLIP FITTING SOCKET TAPER SHALL BE SO SIZED THAT A DRY UNSOFTENED PIPE END CONFORMING TO THESE SPECIAL PROVISIONS CAN BE INSERTED NO MORE THAN HALF WAY INTO THE SOCKET. PLASTIC SADDLE AND FLANGE FITTINGS WILL NOT BE PERMITTED. UNLESS OTHERWISE SPECIFIED, ALL PLASTIC FITTING SHALL BE OF SCHEDULE 40, PVC MATERIAL.

C. ALL PLASTIC TO METAL JOINTS SHALL BE MADE WITH PVC SCHEDULE 40 MALE ADAPTORS OR PVC SCHEDULE 80 NIPPLES. JOINT COMPOUND FOR SUCH CONNECTIONS SHALL BE PERMATEX TYPE II OR TEFLON TAPE.

D. PRIMER AND SOLVENT FOR SOCKET CONNECTIONS OF PVC MATERIAL SHALL BE COMPATIBLE WITH MATERIAL TO BE WELDED AS RECOMMENDED BY THE PLASTIC MATERIAL MANUFACTURER.

#### A. POLYETHYLENE PIPE SHALL BE AS DESCRIBED ON THE DRAWINGS SIZES FOR PIPE AND TUBE SHALL BE COMPATIBLE WITH SPECIFIED FOURMENT FITTINGS. B. POLYETHYLENE PIPE SHALL BE CONTINUOUSLY AND

MANUFACTURER'S NAME, SIZE, MATERIAL, AND DESIGN C. THE PIPE SHALL BE HOMOGENEOUS THROUGHOUT AND FREE FROM VISIBLE CRACKS, HOLES, FOREIGN MATERIALS, BLISTERS,

PERMANENTLY MARKED WITH THE FOLLOWING INFORMATION:

WRINKLES, DENTS, AND VARIATIONS IN SIZE. D. IT SHALL BE POLY PLUS AS MANUFACTURER BY PEPCO OR AN APPROVED EQUAL.

A ALL POLYETHYLENE PIPE FITTINGS TO BE INSTALLED SHALL BE

A. COPPER PIPE SHALL BE TYPE L. HARD TEMPER OR TYPE M SOFT.

B. FITTINGS SHALL BE OF COPPER OR BRASS MATERIAL. SOLDER

JOINTS WITH 50 50 LEAD TIN AND ROSIN-TYPE FLUX. JOINTS

BETWEEN DISSIMILAR METALS SHALL BE MADE WITH AN

MOLDED FITTINGS OF PLASTIC MATERIAL. FITTINGS SHALL BE COMPRESSION TYPE FITTINGS DESIGNED OR SIZED FOR USE WITH SPECIFIC BRAND OF PIPE TO BE USED FOR CONSTRUCTION FITTINGS SHALL BE PEPCO OR EQUAL COPPER PIPE AND FITTINGS

#### NSULATING FITTING. CONNECTION WITH PLASTIC PIPE SHALL BE MADE WITH A THREADED, FEMALE COUPLING. 3. SPRINKLER HEADS AND RISERS

POLETHYLENE FITTINGS

AS SPECIFIED.

A. SPRINKLER HEADS SHALL BE OF THE TYPES AND SIZES SHOWN ON THE PLANS.

B. ALL HEADS OF THE PARTICULAR TYPE OF FUNCTION IN THE SYSTEM SHALL BE OF THE SAME MANUFACTURE AND SHALL BE MARKED WITH THE MANUFACTURER'S NAME AND IDENTIFICATION IN SUCH A POSITION THAT THEY CAN BE IDENTIFIED WITHOUT BEING REMOVED FROM THE SYSTEM.

#### EMITTER INSTALLATION A. EMITTERS SHALL BE SPECIFIED ON THE PLANS

B EMITTER TO RISER ADAPTERS SHALL BE AS SPECIFIED ON THE

C. EMITTER RISER PIPE OR DISTRIBUTION TUBE SHALL BE AS DESCRIBED ON PLANS

5. PLASTIC ENCLOSURES FOR EQUIPMENT A. ENCLOSURES FOR EQUIPMENT SET BELOW FINISH GRADE SHALL BE

PLASTIC IRRIGATION VALVE BOXES AND OR PITS WITH LIDS, THE TYPE AND SIZE BEING DETERMINED BY THE VOLUME OF EQUIPMENT TO BE ENCLOSED ENCLOSURES SHALL BE AS MANUFACTURED BY AMETER OR ROCY.

## A CONTROLLERS SHALL BE AS SPECIFIED ON THE PLAN. CONTRACTOR SHALL TAKE SPECIAL NOTE OF INFORMATION ON

PLANS REGARDING POSSIBLE DUAL PROGRAMMING CAPABILITIES. B VALVES, BACKFLOW PREVENTERS, FILTERS, AND FERTILIZER APPLICATORS SHALL BE AS SPECIFIED ON THE PLANS

#### IRRIGATION CONTROL CABLE A ALL WIRING TO BE USED FOR CONNECTING THE AUTOMATIC

CONTROLLER TO THE FLECTRIC SOLENOID ACTUATED REMOTE CONTROL VALVE SHALL BE TYPE UF 600V, 7 STRAND OR SOLID COPPER. PVC INSULATION, SINGLE CONDUCTOR, UL APPROVED UNDERGROUND FEEDER CABLE ALL PILOT OR "HOT" WIRES ARE TO BE ONE COLOR AND ALL "COMMON" WIRES ARE TO BE OF ANOTHER COLOR

B. CONNECTORS SHALL BE WATERPROOF TYPE AS MANUFACTURED BY

CONTROLLERS SHALL BE PROPERLY GROUNDED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS BY THE INSTALLING CONTRACTOR

A, UNLESS OTHERWISE INDICATED ON THE PLANS, ALL MAIN LINES SHALL BE A MINIMUM COVER OF 15 INCHES AND ALL LATERAL LINES SHALL BE INSTALLED WITH A MINIMUM COVER OF EIGHT (8) INCHES BASED ON FINISH GRADES. SPRINKLER LINES CONNECTING ROTOR POP UP SPRINKLERS SHALL BE INSTALLED WITH A MINIMUM COVER OF 15 INCHES BASED ON FINISH GRADES ALL PLASTIC LINES INSTALLED BENEATH A.C. PAVING SHALL HAVE A MINIMUM OF 24 INCHES OF COVER, AND BACKFILL SHALL CONFORM TO THE MINIMUM COMPACTION TEST OF PAVED AREA INVOLVED

## INSTALLATION OF PLASTIC PIPE AND FITTINGS

A PLASTIC PIPE SHALL BE INSTALLED IN A MANNER SO AS TO PROVIDE FOR EXPANSION AND CONTRACTION AS RECOMMENDED BY THE MANUFACTURER

B. PLASTIC PIPE SHALL BE CUT WITH A HAND SAW OR HACK SAW WITH THE ASSISTANCE OF SQUARED-IN SAWING VISE, OR IN A MANNER SO AS TO ENSURE A SQUARE CUT BURRS AT CUT ENDS SHALL BE REMOVED PRIOR TO INSTALLATION SO THAT SMOOTH UNOBSTRUCTED FLOW WILL BE OBTAINED.

SOLVENT WELDED CONNECTIONS SHALL BE MADE USING PRIMER AND/OR SOLVENT COMPATIBLE WITH PIPE. PIPE SIZES UP TO AND INCLUDING 1" DIAMETER SHALL BE SOLVENT WELDED. PIPE SIZES 1 1/4" DIAMETER AND LARGER SHALL BE PRIMED PRIOR TO THE APPLICATION OF THE SOLVENT. PIPE SHALL BE FULLY INSERTED IN ALL SOCKETS

#### THREADED MALE ADAPTORS SHALL BE COMPOUNDED AS PER MANUFACTURERS RECOMMENDATION. ADAPTOR SHALL THEN BE HAND TIGHTENED PLUS ONE TURN WITH A STRAP WRENCH

E. PIPING UNDER PAVED AREAS SHALL BE SLEEVED IN PVC SCHEDULE 40 PIPE AS SHOWN ON THE DRAWINGS. IN OTHER CASES, PIPING UNDER PAVING SHALL BE INSTALLED BY JACKING. BORING, OR HYDRAULIC DRIVING. WHERE ANY CUTTING OR BREAKING OF SIDEWALKS AND/OR CONCRETE WORK IS NECESSARY. IT SHALL BE REMOVED AND REPLACED BY THE CONTRACTOR. PERMISSION TO CUT OR BREAK SIDEWALKS AND/OR CONCRETE SHALL BE OBTAINED FROM THOSE HAVING PROPER JURISDICTION. WHERE PIPING ON THE DRAWINGS IS SHOWN UNDER PAYED AREAS. BUT RUNNING PARALLEL AND ADJACENT TO PLANTED AREAS, THE INTENT OF THE DRAWINGS IS TO INSTALL THE PIPING IN THE PLANTED AREA.

F. ALL PIPE IN ROCKY SOILS SHALL BE THOROUGHLY EMBEDDED IN SAND OR APPROVED TOP SOIL. NO ROCKS IN BACKFILL WILL BE

#### ACCEPTED INSTALLATION OF POLYETHYLENE PIPE AND FITTINGS. A. PIPE SHALL BE SNAKED IN TRENCHES TO PROVIDE FOR EXPANSION

B. EXCEPT FOR SNAKING IN TRENCHES, THE PIPE SHALL NOT BE SUBJECT TO REVERSE CURVATURE OF THE COIL CREATED AT THE C. PIPE SHALL BE INSTALLED AT THE DEPTH SPECIFIED ON THE

D. AT FITTINGS, PIPE SHALL BE CUT WITH A KNIFE IN A MANNER SO

AS TO ENSURE A SQUARE CUT. WHERE A SADDLE IS TO BE INSTALLED, A LATERAL LINE SUPPORT AND SUITABLE PUNCH FOR THE BARB SHALL BE USED TO ENSURE A PROPER FIT. E. POLYETHYLENE PIPE TO BE INSTALLED UNDER PAVING SHALL BE SLEEVED IN PVC. SCHEDULE 40 PIPE. INSTALLATION SHALL BE AS

SPECIFIED FOR PVC PIPE. F. ALL PIPE IN ROCKY SOILS SHALL BE THOROUGHLY EMBEDDED IN

# SAND OR APPROVED TOPSOIL.

DIRECTION

AND CONTRACTION.

DRAWINGS.

INSTALLATION OF COPPER PIPE A. ALL TUBING SHALL BE CUT ACCURATELY TO MEASUREMENTS ESTABLISHED BY THE CONTRACTOR AND SHALL BE WORKED INTO PLACE WITHOUT SPRINGING OR FORCING PROPER PROVISION SHALL BE MADE FOR EXPANSION AND COLLEGE FLORE ALL TOBE LINES. PROPER FITTINGS SHALL BE USED AT ALL CHANGES OF

B. ALL COPPER TUBING SHALL BE CUT WITH SQUARE ENDS AND ALL BURRS AND FINS REMOVED. TUBING SHALL BE HANDLED AND PROTECTED CAREFULLY AND ALL TUBING CUT, DENTED, OR OTHERWISE DAMAGED SHALL BE REPLACED WITH NEW TUBING END OF TUBING AND INSIDE OF FITTINGS SHALL BE CLEANED WITH A WIRE BRUSH OR ABRASIVE. FLUX SHALL BE APPLIED TO THE OUTSIDE SURFACE OF TUBING ENDS AND ON THE RECESS INSIDE FITTINGS. TUBING SHALL BE INSERTED TO THE FULL DEPTH OF THE FITTING, THEN SOLDERED.

# INSTALLATION OF EQUIPMENT

A. CONTROLLERS SHALL BE INSTALLED AS SHOWN ON THE PLANS. UPON COMPLETION OF ALL WIRING, THE AREAS BEING IRRIGATED BY EACH STATION SHALL BE NOTED INDIVIDUALLY WITH WATERPROOF INK ON THE INSIDE OF THE CONTROLLER DOOR. ALL WIRING SHALL BE IN CONFORMANCE WITH APPLICABLE CODES. B. SOLENOID VALVES SHALL BE INSTALLED AND WIRED AS SHOWN ON

PER MANUFACTURER'S DIRECTIONS. ALL WIRING SHALL BE IN CONFORMANCE WITH APPLICABLE CODES B. SOLENOID VALVES SHALL BE INSTALLED AND WIRED AS SHOWN ON THE PLANS. WATERPROOF CONNECTORS SHALL BE INSTALLED AS PER MANUFACTURER'S DIRECTIONS. ALL WIRING SHALL BE IN CONFORMANCE WITH ALL APPLICABLE CODES

THE PLANS WATERPROOF CONNECTORS SHALL BE INSTALLED AS

C. PRESSURE REGULATORS, FILTERS, AND FERTILIZER APPLICATIONS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS. FLUSHING AND TESTING OF PLASTIC PIPE

A. MAIN SPRINKLER LINES SHALL BE TESTED IN PLACE BEFORE

BACKFILLING FOR A PERIOD OF NOT LESS THAN ONE HOUR, AND

SHALL SHOW NO LOSS OF WATER THROUGH FITTINGS. PRESSURE

B. AFTER ALL NEW SPRINKLER PIPING AND RISERS ARE IN PLACE AND CONNECTED, AND ALL NECESSARY DIVISION WORK HAS BEEN COMPLETED AND PRIOR TO THE INSTALLATION OF SPRINKLER HEADS, CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM. AFTER THE SYSTEM IS THOROUGHLY FLUSHED, HEADS SHALL BE INSTALLED.

#### FLUSHING AND ADJUSTING POLYETHYLENE PIPE LATERAL PRESSURE

SHALL BE STATIC LINE PRESSURE

A. END CAPS ON POLY PIPE SHALL BE REMOVED AND LINE FLUSHED AFTER THE INSTALLATION OF ALL FITTINGS, RISERS, EMITTER ADAPTORS, AND LATERALS. HOSE END SHALL BE CAPPED AND THE TRENCH BE BACKFILLED AFTER FLUSHING

PRESSURE UNLESS SPECIFIED OTHERWISE ON THE PLANS.

B. AFTER FLUSHING, THE PRESSURE REGULATORS SHALL BE

ADJUSTED TO TWENTY (20) POUNDS PER SQUARE INCH LATERAL

A. PRIOR TO BACKFILLING, THE MAIN SHALL BE PRESSURE TESTED. BACKFILLING OF TRENCH BEFORE TESTING SHALL BE COMPLETED AT THE CONTRACTOR'S RISK. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO HAVE ANY OR ALL PIPE EXCAVATED AS IS REQUIRED TO DETERMINE THE SIZE, QUALITY, AND/OR WATER-TIGHT INTEGRITY AT THE EXPENSE OF THE CONTRACTOR.

B CONTRACTOR SHALL WATER SETTLE TRENCHES AND PROVIDE ROUGH GRADE TO MATCH THE GRADE CONDITION PRIOR TO THE WORK AS A PART OF THIS SECTION

# 26. INSTALLATION OF IRRIGATION HEADS AND RISERS

A ALL IRRIGATION HEADS SHALL BE SET PERPENDICULAR TO FINISHED GRADES UNLESS OTHERWISE DESIGNATED ON THE

B. ALL IRRIGATION HEADS ADJACENT TO EXISTING WALKS, CURBS, OR OTHER PAVED AREAS, SHALL BE SET TO GRADE. ROTOR POP-UP SPRINKLER HEADS WHICH ARE TO BE INSTALLED IN LAWN AREAS WHERE THE TURF HAS NOT YET BEEN ESTABLISHED SHALL BE SET FOUR (4) INCHES ABOVE THE PROPOSED FINISHED GRADE. HEADS INSTALLED IN THIS MANNER WILL BE LOWERED TO GRADE BY THE CONTRACTOR WHEN THE TURF IS SUFFICIENTLY ESTABLISHED TO ALLOW WALKING ON IT WITHOUT APPRECIABLE DESTRUCTION.

ALL IRRIGATION HEADS CONTAINING ADJUSTABLE PIN NOZZLES SHALL HAVE THE PINS ADJUSTED FOR ADEQUATE AND PROPER DISTRIBUTION.

D. ALL NOZZLES ON STATIONARY POP-UP SPRINKLERS SHALL BE TIGHTENED AFTER INSTALLATION ALL SPRINKLERS HAVING AN ADJUSTMENT STEM SHALL BE ADJUSTED ON A LATERAL LINE FOR THE PROPER RADIUS, DIAMETER AND/OR GALLONAGE.

E. SPRINKLER HEADS AND RISERS SHALL CONFORM TO DETAILS AND DESCRIPTIONS ON THE DRAWINGS.

INSTALLATION OF EMITTERS AND RISERS

WARRANTY GUARANTEE

ON THE PLANS. B. EMITTERS SHALL NOT BE ASSEMBLED TO RISER UNTIL FLUSHING IS COMPLETED. CARE SHALL BE TAKEN PRIOR TO EMITTER INSTALLATION AND PIPE KEPT FREE OF FOREIGN MATTER AFTER

FLUSHING AND PRIOR TO EMITTER INSTALLATION.

A. EMITTERS AND RISER ASSEMBLIES SHALL BE INSTALLED AS SHOWN.

#### C. COORDINATION OF EMITTERS WITH PLANTING IS A REQUIREMENT. IN AREAS WHERE IRRIGATION AND PLANTING IS CONTRACTED TO SEPARATE PARTIES, FINAL COORDINATION OF EMITTERS SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

A. WARRANTY SHALL BE FOR A PERIOD OF ONE YEAR AS DEFINED IN SECTION I, SUBSECTION 7 PARAGRAPHS A. B. AND C

A THE CONTRACTOR SHALL MAINTAIN THE SYSTEM IN PROPER WORKING ORDER UNTIL THE DATE OF FINAL ACCEPTANCE. B. MAINTENANCE SHALL INCLUDE THE SETTING OF IRRIGATION HEADS TO PROPER FINISH GRADES AFTER TURE AS BEEN

THE CONTRACTOR SHALL INSTRUCT THE OWNER'S MAINTENANCE

PERSONNEL IN THE PROPER OPERATION OF THE SYSTEM, AND

A. THE CONTRACTOR SHALL PROVIDE COMPLETE MAINTENANCE AS

CONTROLLER PROGRAMMING MAINTENANCE PERIOD

## SECTION V DECOMPOSED GRANITE GROUND COVER

DESCRIBED IN SPECIAL CONDITIONS, ITEM 10

A. ALL OF THE PROVISIONS OF SECTIONS I AND II SHALL APPLY TO THIS SECTION AS IF THEY WERE WRITTEN HEREIN.

A. DECOMPOSED GRANITE SHALL BE NATIVE. LOCAL, DESERT,

DECOMPOSED GRANITE STONE OF SIZE 1/16" DIAMETER TO 3/4"

DIAMETER FINES BELOW THIS RANGE SHALL BE KEPT TO A

MAXIMUM OF 30% OF THE TOTAL VOLUME. GRANITE SHALL BE

FREE OF ORGANIC MATTER AND OTHER DEBRIS. UNLESS

#### OTHERWISE SPECIFIED ON DRAWINGS, THE COLOR OF THE GRANITE SHALL BE APPROVED BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL PROVIDE LANDSCAPE ARCHITECT WITH A SAMPLE OF MATERIAL FOR APPROVAL BEFORE INSTALLATION.

#### B. CHEMICAL HERBICIDE SHALL BE DACTHOL, SURFLAN OR EQUAL PRE-EMERGENT.

DECOMPOSED GRANITE

SUBGRADE PREPARATION A. THE EXISTING GRADE SHALL BE FINE GRADED AND RAKED FREE OF ORGANIC MATTER AND OTHER DEBRIS ONE (I) INCH DIAMETER AND LARGER. A LEVEL BOARD NOT LESS THAN EIGHT (8) FEET IN LENGTH SHALL BE USED TO INSPECT SUBGRADE FOR ACCURACY

# DECOMPOSED GRANITE INSTALLATION

A. INSTALLATION PROCEDURES FOR DECOMPOSED GRANITE MAY VARY BY THE SCALE OF THE PROJECT AND THE SIZE OF SPECIFIC AREAS TO RECEIVE DECOMPOSED GRANITE GROUND COVER. INSTALLED GRANITE SHALL BE DRAGGED OR RAKED TO REMOVE ANY IRREGULARITIES. INSTALLATION SHALL PROVIDE A COMPACTED DEPTH OF ECOMPOSED GRANITE AS SPECIFIED ON THE DRAWINGS. METHODS OF

COMPACTING, SUCH AS ROLLING, WATER SETTLING, ETC., SHALL BE

APPROVED BY LANDSCAPE ARCHITECT. A LEVEL BOARD NOT LESS THAN

EIGHT (8) FEET IN LENGTH SHALL BE USED TO INSPECT GRADE FOR

ACCURACY AND TRUENESS. UNLESS OTHERWISE SPECIFIED IN THE

#### DRAWINGS, GRANITE FINISH GRADE SHALL BE 1" BELOW THE TOP OF CURB OR SIDEWALK SURFACES.

WEED CONTROL APPLICATION OF CHEMICAL HERBICIDES SHALL BE AT THE RATE OF TWELVE TO TO THE TETN (16) POUNDS DEP ACRE OF RATES AS PER MANUFACTURER'S SPECIFICATIONS - MATERIAL SHALL BE APPLIED. IN SOLUTION WITH WATER AS RECOMMENDED BY THE MANUFACTURER.

CONTRACTOR SHALL REMOVE FROM THE SITE, DEBRIS AND/OR

#### WASTE MATERIALS DEVELOPED AS A RESULT OF THE WORK IN THIS SECTION. ALL PAVED SURFACES SHALL BE CLEAN OF DIRT OR GRANITE WITH COMPLETION OF THIS SCOPE OF WORK.

MAINTENANCE AND GUARANTEE AREAS OF GRANITE SHALL BE MAINTAINED FREE OF WEEDS, FREE OF OTHER DEBRIS, AND TRUE TO GRADE UNTIL FINAL ACCEPTANCE ND UNTIL COMPLETION OF ANY CONTRACTED MAINTENANCE

# SECTION VI SOD INSTALLATION

IING OF ALL LABOR, MATERIAL SSARY TO COMPLETE WORK FOR DRAWINGS AND AS SPECIFIED THIS SEC

WISIONS OF THE GENERAL CONDITIONS AND

SHALL APPLY TO THIS SECTION AS IF THEY

ISTALLATION OF SOD.

OWER TO

SOIL PREPARATION TABLE FOURPMENT A. TILL: REMOVE DE S TO ELIMINATE TO TILL THE SOIL TO COMPACTION. GRADE: ROUGH AND F

C. FERTILIZER: BROADCAST EVENLY ON PER 1,000 SQUARE FEET OF 16:20:0 AMMONI

SIDEWALKS AND HEADER BOARD

ACCOMODATE SOD THICKNESS

AND NECESS

DRIVEWAYS, ETC.

SOD SHALL BE AS NOTED ON PLANT LIST. A. SOD SHALL BE LAID WITH CLOSELY FITTED JOINTS, AND EN

A. SOD MATERIAL SHALL BE APPROVED BY LANDSCA

THE STRIPS SHALL BE STAGGERED. ON IRREGULAR-SHAPED ARE

STRAIGHT LINE THAT CAN BE DRAWN THROUGH THE AREA

SOD SHALL BE LAID IN BOTH DIRECTIONS FROM THE LONGES

SOD SHALL BE ROLLED AFTER AN INITIAL WATERING TO E IRREGULARITIES. CAUTION: IMMEDIATE INITIAL IS VERY IMPORTANT TO SOD SURVIVAL DO NOT OVER TING A SPONGY CONDITION FOR ROLLER ROLLING WATER THOROUGHLY TO LEAST 8" TO 10". REPEAT WATERING AT KEEP SOD MOIST AT ALL TIMES UNTIL

STAND OF GRASS. A. CONTRAC ROUGH ITS SECOND B. CONTRACTOR

NG DEAD SOD C. MAINTENANCE SHALL O ENSURE FERTILIZING, CUTTING AN EVEN, SMOOTH STAND O D. SOD SHALL BE MAINTAINED SPECIFIED MAINTENANCE PERIUS

MAINTENANCE PERIOD A. CONTRACTOR SHALL MAINTAIN ALL SOD A MOWINGS FOR A PERIOD OF TIME AS SPECIFIED

MOWING PER WEEK, WATERING AND

# SECTION VII

LAWN CONSTRUCTION

A. ALL PROVISIONS OF THE GENERAL AND SPECIAL CONDITIONS

# SHALL APPLY TO THIS SECTION.

ITEM 10.

A WORK INCLUDES THE FURNISHING OF ALL LABOR, MATERIAL EQUIPMENT AND SERVICES NECESSARY TO COMPLETE WORK FOR THIS SECTION AS INDICATED ON THE DRAWINGS AND AS SPECIFIED

# AND NECESSARY TO COMPLETE THE PLANTING OF TURF.

A SEED: THE KIND OF SEED PLANTED SHALL BE APPROPRIATE FOR

THE PLANTING SEASON, AND SHALL BE ONE OF THE FOLLOWING: D. SUMMER LAWN SEED: SHALL BE COMMON BERMUDA GRASS (CYNONDON DACTYLON), SHALL BE PLANTED FROM APRIL 15 TO SEPTEMBER 1 IN THE PHOENIX METRO AREA, IT SHALL BE FANCY HULLED SEED HAVING MINIMUM PERCENTAGES OF PURITY AND GERMINATION OF 94% AND 88% RESPECTIVELY. AND A WEFD SEFD CONTENT NOT EXCEEDING 0.35%

2) WINTER LAWN SEED: SHALL BE ANNUAL RYE GRASS (LOLIUM) MULTIFLORUM) SHALL BE PLANTED FROM SEPTEMBER 15 TO APRIL 15 IN THE PHOENIX METRO AREA, IT SHALL HAVE A MINIMUM PERCENTAGE OF PURITY AND GERMINATION OF 95% AND 88% RESPECTIVELY

#### A. MOISTURE CONTENT: THE SOIL SHALL NOT BE WORKED WHEN THE MOISTURE CONTENT IS SO GREAT THAT EXCESS COMPACTION WILL OCCUR, NOR WHEN IT IS SO DRY THAT A DUST WILL FORM IN THE AIR OR THAT CLODS WILL NOT BREAK READILY. WATER

SOIL PREPARATION

B. ALL LAWN AREAS SHALL BE SCARIFIED TO A DEPTH OF 4 TO 6 INCHES TO LOOSEN COMPACTED SOIL. FLOAT TO LEVEL PLANTING

SHALL BE APPLIED IF NECESSARY TO PROVIDE IDEAL MOISTURF

CONTENT FOR TILLING AND FOR PLANTING HEREIN SPECIFIED.

C. DRAG AND RAKE ALL TURE AREAS REMOVING ALL CLODS OR

E. AFTER AREAS HAVE BEEN PREPARED FOR SEEDING, NO HEAVY

OBJECTS EXCEPT LAWN ROLLERS SHALL BE TAKEN OVER THESE

AREAS AT ANY TIME. PRIOR TO SEEDING, THE LANDSCAPE

ROCKS ONE (1) INCH IN DIAMETER AND LARGER. THOROUGHLY

WATER SETTLE ALL SOIL D. IN ALL PRELIMINARY AND FINAL PREPARATIONS FOR SEEDING. A LEVEL BOARD NOT LESS THAN 8 FEET IN LENGTH SHALL BE USED TO ENSURE TRUE AND ACCURATE GRADES AND SMOOTH SURFACES

#### ARCHITECT SHALL APPROVE THESE AREAS FOR GRADE AND COMPACTION.

A. JUST PRIOR TO BROADCASTING THE SEED, APPLY AND LIGHTLY RAKE INTO THE SURFACE THE FOLLOWING:

1) FIVE (5) POUNDS SULFATE OF AMMONIA PER 1,000 SQ. FT.

2) FIFTEEN (15) POUNDS SUPERPHOSPHATE PER 1,000 SQ. FT. B. AFTER APPROVAL OF THE AREAS TO BE SEEDED BY THE LANDSCAPE ARCHITECT, THE SEED WILL BE BROADCAST AT THE RATE OF THREE (3) POUNDS BERMUDA OR FIFTEEN (15) OF RYE SEED PER 1,000 SQ. FEET. ONE-HALF OF THE SEED WILL BE SOWN WITH THE SOWER MOVING IN ONE DIRECTION AND THE OTHER HALF SHALL BE SOWN WITH THE SOWER MOVING AT RIGHT ANGLES TO THE FIRST SOWING. BROADCASTING SHALL NOT BE DONE IN WINDY WEATHER. AFTER SEEDLING OPERATIONS ARE

FOREST HUMUS. SPREAD MULCH EVENLY OVER ALL AREAS TO A DEPTH OF 1/4 INCH TO 1/2 INCH OR 50 POUNDS PER 1,000 SQ. Ff. D. LIGHTLY ROLL ALL AREAS AND THOROUGHLY WATER WITH A FINE SPRAY. IF A SPRINKLER SYSTEM IS USED, HAND WATER EDGES OF

MULCHING: TOP DRESS ALL SEEDED AREAS WITH A MULCH OF

ALL LAWN AREAS. TURE SHALL THEN BE KEPT CONTINUALLY

SHALL BE TAKEN TO PREVENT EROSION FROM SURFACE DRAINAGE

PRODUCED BY CONWED COMPANY, ST. PAUL, MINNESOTA.

COMPLETED, APPLY WATER AS SOON AS POSSIBLE.

MOIST BY WATERING AS OFTEN AS REQUIRED. F CONTRACTOR SHALL CLEAN ALL PAVEMENT OF MULCH, SOIL. ROCKS OR OTHER DEBRIS CREATED BY THIS SCOPE OF WORK. PROTECT TURF AREAS AGAINST DAMAGE, INCLUDING EROSION AND TRESPASS, AND PROVIDE PROPER SAFEGUARDS AS MAY BE NEEDED. REPLANT DAMAGED AREAS PROMPTLY. SPECIAL CARE

## FROM OTHER AREAS. ANY DAMAGE FROM SAME SHALL BE THE CONTRACTOR'S RESPONSIBILITY

A. MATERIALS;

HYDROMULCHING

2) SEED SHALL BE DESCRIBED PREVIOUSLY. B. APPLICATION: THE HYDROSEED MIXTURE SHALL BE APPLIED USING HYDRAULIC SPRAY MULCHING OR SEEDING EQUIPMENT. COVER SHALL BE COMPLETE. THE PROPORTIONS SHALL BE AS

1) FIBER -- 1,500 LBS. PER ACRE.

MANUFACTURER'S RECOMMENDATIONS.

2) SEED AS SPECIFIED PREVIOUSLY. 3) FERTILIZER AS SPECIFIED PREVIOUSLY.

#### D. CLEAN-UP: CONTRÁCTOR SHALL CLEAN UP SIDEWALKS; ETC. UPON WHICH HYDROMULCH IS OVER SPRAYED MAINTENANCE AND GUARANTEE

4) WATER -- AS REQUIRED.

A. CONTRACTOR SHALL GUARANTEE A FULL STAND OF GRASS. CONTRACTOR SHALL PROVIDE MAINTENANCE OF ALL TURF UNTIL AN APPROVED FULL STAND OF GRASS IS ACHIEVED. MAINTENANCE SHALL INCLUDE WATERING, FERTILIZING, WEEDING, AND MOVING AS NECESSARY. AREAS THAT ARE NOT FULLY COVERED SHALL BE RESEEDED AT TEN (10) DAY INTERVALS. CONTRACTOR SHALL BE RESPONSIBLE FOR TURF UNTIL AFTER SECOND MOWING OF THE FULL STAND. CONTRACTOR SHALL VERIFY AND RECEIVE APPROVAL FROM LANDSCAPE ARCHITECT BEFORE MOWING GRASS FOR FINAL ACCEPTANCE.

# DRAWN NR

JOB NO. DATE \_NOV.4,1992\_ REVISION FEB.15,1993 JANUARY 27,1994

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JOSEPH F ROMANO A

1) MULCH MATERIAL SHALL BE CONWED 2000 FIBER AS C. LOADING AND MIXING OF HYDROSEED MIXTURE -- SEE