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File 1993-0008 Name: Visitor's Convention Center - SPR- 740 Horizon Drive

Present	Scanned	
		A few items are denoted with an asterisk (*), which means they are to be scanned for permanent record on the ISYS retrieval system. In some instances, items are found on the list but are not present in the scanned electronic development file because they are already scanned elsewhere on the system. These scanned documents are denoted with (**) and will be found on the ISYS query system in their designated categories. Documents specific to certain files, not found in the standard checklist materials, are listed at the bottom of the page. Remaining items, (not selected for scanning), will be listed and marked present. This index can serve as a quick guide for the contents of each file.
X	X	**Table of Contents**
		***Review Sheet Summary**
X	X	***Application form**
		Review Sheets
X		Receipts for fees paid for anything
X	X	***Submittal checklist**
X	X	***General project report**
		Reduced copy of final plans or drawings
		Reduction of assessor's map.
		Evidence of title, deeds, easements
		***Mailing list to adjacent property owners**
		Public notice cards
		Record of certified mail
		Legal description
		Appraisal of raw land
		Reduction of any maps – final copy
		***Final reports for drainage and soils (geotechnical reports)**
		Other bound or non-bound reports
		Traffic studies
		***Review Comments**
		***Petitioner's response to comments**
		***Staff Reports**
		***Planning Commission staff report and exhibits**
		***City Council staff report and exhibits**
		***Summary sheet of final conditions**

DOCUMENT DESCRIPTION:

X	X	Planning Clearance - **			
X	X	Soils Report - no date			
X	X	Correspondence			
X	X	City Council Minutes - ** - 2/17/93			
X		E-mails			
X		Fax transmittal sheet for Revised Plans - 6/29/93			
X		Certificate of Occupancy - 2/2/94			
X	X	Drainage Concept drawings			
X	X	Site Plan			
X	X	Landscape Plan - not date stamped, signed - to be scanned			
X	X	Grading and Drainage Plan - not date stamped, signed - to be scanned			
X	X	Irrigation Plan - not date stamped, signed - to be scanned			

CONCLUSIONS AND RECOMMENDATIONS

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GENERAL DISCUSSION

No geologic conditions were apparent during our reconnaissance which would preclude the site development as planned, provided the recommendations contained herein are fully complied with. Based on our investigation to date and the knowledge of the proposed construction, the site condition which would have the greatest effect on the planned development is the metastable surface soils which overlie the expansive Mancos Shale Formation.

Since the exact magnitude and nature of the foundation loads are not precisely known at the present time, the following recommendations must be somewhat general in nature. Any special loads or unusual design conditions should be reported to Lincoln DeVore so that changes in these recommendations may be made, if necessary. However, based upon our analysis of the soil conditions and project characteristics previously outlined, the following recommendations are made.

EXCAVATION & STRUCTURAL FILL:

Subgrade

Site preparation in all areas to receive structural fill should begin with the removal of all topsoil, vegetation, and other deleterious materials. Prior to placing any fill, the subgrade should be observed by representatives of Lincoln DeVore to determine if the existing vegetation has been adequately removed and that the subgrade is capable of supporting

the proposed fills. The subgrade should then be scarified to a depth of 10 inches, brought to near optimum moisture conditions and compacted to at least 90% of its maximum modified Proctor dry density [ASTM D-1557]. The moisture content of this material should be within + or - 2% of optimum moisture, as determined by ASTM D-1557.

Structural Fill

In general, we recommend all structural fill in the area beneath any proposed structure or roadway be compacted to a minimum of 90% of its maximum modified Proctor dry density (ASTM D1557). We recommend that fill be placed and compacted at approximately its optimum moisture content (+/-2%) as determined by ASTM D 1557. Structural fill should be a granular, coarse grained, non-free draining, non-expansive soil. This structural fill should be placed in the overexcavated portion of this site in lifts not to exceed 6 inches after compaction. This Structural Fill must be brought to the required density by mechanical means. No soaking, jetting or puddling techniques of any type should be used in placement of fill on this site.

Non-Structural Fill

We recommend that all backfill placed around the exterior of the building, and in utility trenches which are outside the perimeter of the building and not located beneath roadways or parking lots, be compacted to a minimum of 80% of its maximum modified Proctor dry density (ASTM D-1557).

Fill Limits

To provide adequate lateral support, we recommend that the zone of overexcavation extend at least 3 feet beyond the perimeter of the building on all sides. The Structural Fill should be a minimum of 3 feet in final compacted thickness.

No major difficulties are anticipated in the course of excavating into the surficial soils on the site. It is probable that safety provisions such as sloping or bracing the sides of excavations over 4 feet deep will be necessary. Any such safety provisions shall conform to reasonable industry safety practices and to applicable OSHA regulations. The OSHA classification for excavation purposes on this site is Soil Class B for the alluvial soils and Soil Class A for the upper four feet of the Mancos Shale Formation.

Field Observation & Testing:

During the placement of any structural fill, it is recommended that a sufficient amount of field tests and observation be performed under the direction of the geotechnical engineer. The geotechnical engineer should determine the amount of observation time and field density tests required to determine substantial conformance with these recommendations. It is recommended that surface density tests be taken at maximum 2 foot vertical interval.

The opinions and conclusions of a geotechnical report are based on the interpretation of information obtained by random borings. Therefore the actual site

conditions may vary somewhat from those indicated in this report. It is our opinion that field observations by the geotechnical engineer who has prepared this report are critical to the continuity of the project.

Slope Angles

Allowable slope angle for cuts in the native soils is dependent on soil conditions, slope geometry, the moisture content and other factors. Should deep cuts be planned for this site, we recommend that a slope stability analysis be performed when the location and depth of the cut is known.

DRAINAGE AND GRADIENT:

Adequate site drainage should be provided in the foundation area both during and after construction to prevent the ponding of water and the saturation of the subsurface soils. We recommend that the ground surface around the structure be graded so that surface water will be carried quickly away from the building. The minimum gradient within 10 feet of the building will depend on surface landscaping. We recommend that paved areas maintain a minimum gradient of 2%, and that landscaped areas maintain a minimum gradient of 8%. It is further recommended that roof drain downspouts be carried across all backfilled areas and discharged at least 10 feet away from the structure. Planters, if any, should be so constructed that moisture is not allowed to seep into foundation areas or beneath slabs or pavements.

We recommend that a perimeter drain be placed around the exterior walls of the structure at foundation level or below. A drain of this type includes a perforated pipe and an adequate gravel collector, the whole being wrapped in a geotextile filter fabric. We recommend that the discharge pipe for this drain be given a free gravity outlet to exit at ground surface. If "daylight" cannot be obtained, we recommend that a sealed sump and pump be used to discharge the seepage. Under no circumstances shall a "dry well" be used on this site.

Most hydrocompaction mitigation techniques are drainage considerations. The most important drainage consideration would be the continual maintenance of positive surface drainage away from the structures at all points. Positive surface drainage conditions must be maintained both during construction and throughout the service life of the structures. No flat areas or closed depressions should be allowed to exist anywhere on the site. Proper control of all roof runoff is extremely important. It is strongly recommended that downspout discharges be piped away from the structure. No water should be allowed to pond or stand within 30 feet of any structure.

No subsurface seepage was encountered during drilling, except in Exploration Boring #1 which is outside the proposed building footprint. However, the soil profile is stratified with occasional thin lenses of moderately permeable silty sand. If seepage should be encountered in the open excavation, some special drainage feature for use during construction will be required. This could consist of an interceptor drain

placed between the water source and the proposed building site to collect subsurface seepage before it can reach the foundation area. Additional recommendations regarding such a drain system can be provided at a later date, if required.

To give the building extra lateral stability and to aid in the rapidity of runoff, it is recommended that all backfill around the building and in utility trenches in the vicinity of the building be compacted to a minimum of 85% of its maximum Proctor dry density, ASTM D 1557. The native soils on this site may be used for such backfill. We recommend that all backfill be compacted using mechanical methods. No water flooding techniques of any type may be used in placement of fill on this site.

Should an automatic lawn irrigation system be used on this site, we recommend that the sprinkler heads be installed a minimum of 10 feet from the building. In addition, these heads should be adjusted so that spray from the system does not fall onto the walls of the building and that such water does not excessively wet the backfill soils.

FOUNDATIONS

Assuming that some amount of differential movement can be tolerated, then a conventional shallow foundation system, underlain by structural fill, placed in accordance with the recommendations contained within this report may be utilized. The foundation would consist of continuous spread footings beneath all bearing walls and isolated spread footings beneath all columns and other points of concentrated load. Such a shallow foundation system, resting on the properly constructed structural fill may be designed on the basis of an allowable bearing capacity of 2200 psf maximum. Recommendations pertaining to balancing, reinforcing, drainage, and inspection are considered extremely important and must be followed. Contact stresses beneath all continuous walls should be balanced to within + or - 200 psf at all points. Isolated interior column footings should be designed for contact stresses of about 150 psf less than the average used to balance the continuous walls. The criteria for balancing will depend somewhat on the nature of the structure. Single-story, slab-on-grade structures may be balanced on the basis of dead load only. Multi story structures may be balanced on the basis of dead load plus one half live load, for up to three stories.

An extensive layer of low- to medium-density, native alluvial soils which may contain metastable strata was encountered on this site. These soils may contain strata of extremely low density and are not judged suitable for the support of this proposed shallow foundation systems. Owing to the depths to which this low density soil was encountered and the

relatively shallow excavation depths anticipated, it is recommended that an overexcavation/replacement scheme be used on this site.

The existing low density, potentially metastable soils should be removed to a depth of 3 feet below the proposed bottom footing elevation. Once it is felt that adequate soil removal has been achieved, it is recommended that the excavation be closely examined by a representative of Lincoln-DeVore to ensure that an adequate overexcavation depth has indeed occurred and that the exposed soils are suitable to support the proposed structural man-made fill.

Once this examination has been completed, it is recommended that a coarse-grained, non-expansive, non-free draining man-made structural fill be imported to the site. This imported fill should be placed in the overexcavated portion of this site in lifts not to exceed 6 inches after compaction. A minimum of 90% of the soils maximum Modified Proctor dry density (ASTM D-1557) must be maintained during the soil placement. These soils should be placed at a moisture content conducive to the required compaction (usually Proctor optimum moisture content $\pm$ 2%). The granular material must be brought to the required density by mechanical means. No soaking, jetting or puddling techniques of any type should be used in placement of fill on this site. To ensure adequate lateral support, we must recommend that the zone of overexcavation extend at least 2 feet around the perimeter of the proposed footing. To confirm the quality of the compacted fill product, it is recommended that surface density

tests be taken at maximum 2 foot vertical intervals.

The placement of a geotextile fabric for separation between the native soils and the structural fill is recommended to aid the fill placement and to improve the stability of the completed fill.

When The structural fill is completed, an allowable bearing capacity of 2000 psf maximum may be assumed for proportioning the footings.

Stem walls for a shallow foundation system should be designed as grade beams capable of spanning at least 13 feet. These "grade beams" should be horizontally reinforced both near the top and near the bottom. The horizontal reinforcement required should be placed continuously around the structure with no gaps or breaks. A foundation system designed in this manner should provide a rather rigid system and, therefore, be better able to tolerate differential movements associated with the underlying metastable soils and any possible effects of the expansive Mancos Shale bedrock.

It is extremely important, due to the nature of data obtained by the random sampling of a nonhomogeneous material such as soil, that a shallow foundation system be used only if all recommendations are strictly followed. All the listed recommendations regarding fill compaction, site grading, drainage and subsurface water control are exceedingly important. **CAUTION : Failure to follow these recommendations will void part or all of the recommendations contained in this report.**

SETTLEMENT:

Close estimates of total and differential settlement will not be provided in this report since Lincoln DeVore has not been given exact foundation loads. Upon completion of the structural plans, the predicted settlements can be supplied upon request.

FROST PROTECTION

We recommend that the bottom of all foundation components rest a minimum of 1 1/2 feet below finished grade or as required by the local building codes. Foundation components must not be placed on frozen soils.

DEEP FOUNDATIONS:

We recommend that a deep foundation system, consisting of either drilled piers or driven piles be used to carry the weight of the proposed structure. Deep foundations must extend through the variable-density, potentially metastable silty clay alluvial materials and into the underlying Mancos Shale Formation. Both types of foundation have advantages and disadvantages with respect to this site. Therefore, the decision as to which system is used is largely economic and will be left to the owner or his representative. Drilled pier and driven pile foundation systems will be discussed in turn.

DRILLED PIERS:

We reoommend that drilled piers have a minimum shaft length of 10 feet and be embedded at least 5 feet into the relatively unweathered bedrock. At this level, these piers may be designed for a maximum end bearing capacity of 25,000 psf, plus 1800 psf side support considering only the side wall area embedded in the bedrock. Due to the expansive potential of the bedrock, a minimum dead load uplift is required, consisting of a point uplift of 1800 psf and 270 psf side uplift, based on the side wall embedded in the bedrock. The overburden is soft and no supporting or uplift values are assigned to this material. The weight of the concrete in the pier may be incorporated into the required dead load.

It is recommended that the bottoms of all piers be thoroughly cleaned prior to the placement of concrete. The amount of reinforcing in each pier will depend on the magnitude and nature of loads involved. As a rule of thumb, reinforcing equal to approximately 1/2 of 1% of the gross cross-sectional concrete area should be used. Additional reinforcing should be used if structural conditions warrant. We recommend that reinforcing extend through the full length of pier.

To minimize the possibility of voids developing in the drilled piers, concrete with a slump of 5 to 6 inches is recommended. We recommend that piers be dewatered and thoroughly cleaned of all loose material prior to placing the steel cage and concrete. The pier excavation should contain no more than 2 inches of free water unless the concrete is placed by

means of a tremie extending to the bottom of the pier. A free-fall in excess of 5 feet is not recommended when placing concrete in drilled piers. We recommend that casing be pulled as the concrete is being placed and that a 5 foot head of concrete be maintained while pulling the casing. It is recommended that drilled piers be plumb with 2% of their length and that the shaft maintain a constant diameter for the full length of the pier and not allowed to "mushroom" at the top.

DRILLED PIER OBSERVATION:

The foundation installation for drilled piers should be continuously observed by a representative of Lincoln DeVore to determine that the recommended bearing material has been adequately penetrated and that soil conditions are as anticipated by the exploration. This observation will aid in attaining an adequate foundation system. In addition, abnormalities in the subsurface conditions encountered during foundation installation can be identified and corrective measures taken as required. Lincoln DeVore requires a minimum of one working day's notice, and a copy of the foundation plan, to schedule any field observation.

GRADE BEAMS:

A reinforced concrete grade beam is recommended to carry the exterior wall loads in conjunction with the deep foundation system. We recommend that this grade beam be designed to span from bearing point to bearing point and not be allowed to rest on the ground surface between these points. We

recommend a void space be left between the bottom of the grade beam and the subgrade below due to the expansive nature of the subgrade soils.

DRIVEN PILES:

We recommend that driven piles bear in the competent materials of the underlying formation. We anticipate that pile driving refusal will be encountered within a few feet of penetration into the Mancos Shale Formation. Based on a static analysis, piles driven to refusal may be designed for an allowable tip bearing capacity of 70 to 100 tons. To determine the bearing area of the pile, the area including the space between the flanges may be included. For example, an HB-12 pile may be assumed to have an end area of approximately 1 square foot. A round, closed-end pipe pile bearing area would be the area of the pile end plate. Pile driving refusal should be determined by our representative in the field. Generally, pile driving refusal is taken as a maximum of 15 blows per inch. If pile groups are used, the overall capacity of the pile group should be reduced in accordance with the appropriate efficiency formula (such as the Converse-Labarre method). If bearing capacities greater than those recommended above are necessary, we recommend that the pile bearing capacity be determined on the basis of static load tests.

It is anticipated that steel piling (either 'H' sections or concrete filled pipe) will be utilized in this construction. The following recommendations will assume the use of these materials. If wood or concrete piling are

anticipated, recommendations can be readily provided.

Driving hammers should be of such size and type to consistently deliver effective dynamic energy suitable to the piles and materials into which they are to be driven. Hammers should operate at manufacturer's recommended speeds and pressures. We recommend that a pile driving hammer be used which is rated at least 19,000 feet pounds. However, driving energy should not be so large that pile damage occurs.

Piles must be used in groups to provide for eccentricities in loading. The group capacity will be less than the summation of the individual pile capacities, depending upon the relative spacing of the piles. A conservative estimate of group capacity is two-thirds of the summation of the individual pile capacities.

We recommend that minimum spacing of the piles be twice the average pile diameter or 1.75 times the diagonal dimension of the pile cross-section, but no less than 24 inches. It is recommended that the tops of the piles extend a minimum of 4 inches into the pile cap. Based on the exploration borings no pile shorter than 15 feet is recommended unless proper pile capacity is verified by field inspection by the Geotechnical Engineer. Vertical piles should not vary more than 2% from the plumb position. We further recommend that eccentricity of reaction on a pile group with respect to the load resultant not exceed a dimension that would produce overloads of more than 10% in any one pile.

Since the underlying bedrock is moder-

ately expansive, we recommend a minimum of permanent pressure be maintained on each pier. The minimum pressure should be designed based on a tip uplift pressure of 1800 psf. The area used to consider the uplift pressure should be width times the depth of the pile section used when considering H piles. Round pipe piles will require an end uplift pressure of 1800 psf and a side uplift of 270 psf for the portion of the side wall in contact with the expansive formation.

Based on our analyses, a standard 10-3/4inch diameter, 1/4 inch wall, pipe pile driven to refusal may be designed for an allowable capacity of 70 to 100 tons. On this site the capacity of the pile will govern allowable load. Pile driving refusal required to obtain the recommended capacity was taken as 7 blows per inch with a 20 foot kip hammer. Driving hammers should be of such size and type to consistently deliver effective energy suitable to the piles and materials into which they are driven. Final pile driving refusal should be determined by representatives of Lincoln DeVore in the field.

DRIVEN PILE OBSERVATION:

Continuous observation of the pile driving operations and a pile load test, if required, should be performed by Lincoln DeVore as a representative of the owner. A continuous log should be maintained on the number of blows per foot required to drive each pile. Driving should be completed without interruption (except for splicing) and without jetting or pre-drilling unless the geotechnical engineer has been contacted for further recommendations.

GRADE BEAMS:

A reinforced concrete grade beam is recommended to carry the exterior wall loads in conjunction with the deep foundation system. We recommend that this grade beam be designed to span from bearing point to bearing point and not be allowed to rest on the ground surface between these points. We recommend a void space be left between the bottom of the grade beam and the subgrade below due to the expansive nature of the subgrade soils.

ORIGINAL

SUBMITTAL CHECKLIST

SITE PLAN REVIEW

Location: ____________________ Project Name: VCB Visitors Center

93 — Remove from Office 18

	ITEMS: DESCRIPTION	SSID REFERENCE	City Community Development ●	City Dev. Eng. ●	City Utility Eng. ●	City Property Agent ●	City Parks/Recreation ●	City Fire Department ●	City Attorney ●	City Downtown Dev. Auth. ○	County Planning ○	County Bldg. Dept. ●	Irrigation District ○	Drainage District ○	Water District ○	Sewer District ○	U.S. West ○	Public Service ○	GVRP ○	CDOT ●	Corps of Engineers ○	Walker Field ●	TOTAL REQ'D.
DK	● Application Fee $145.00	VII-1	1																				
	● Submittal Checklist*	VII-3	1																				
K.H.	● Review Agency Cover Sheet*	VII-3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
DK	● Planning Clearance*	VII-3	1																				
D.T. 18	● 11"x17" Reduction of Assessor's Map	VII-1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	~~● Evidence of Title~~	VII-2	1			1			1														
	○ Appraisal of Raw Land	VII-1	1			1	1																
	○ Deeds	VII-1	1			1			1														
	○ Easements	VII-2	1	1	1	1			1														
D.T.	● Avigation Easement	VII-1	1			1			1														
	○ ROW	VII-3	1	1	1	1			1														
	○ Improvements Agreement/Guarantee	VII-2	1	1	1				1														
M.R.	● CDOT Access Permit copy	VII-3	1	1																			
	○ Industrial Pretreatment Sign-off	VII-4	1		1																		
K.H. 10	● General Project Report	X-7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	● Elevation Drawing	IX-13	1	1																			
K.H. 12	● Site Plan	IX-29	2	2	1	1																	
	● 11"x17" Reduction of Site Plan	IX-29					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
K.H. 2	● Grading and Drainage Plan	IX-16	1	2										1							1		
	○ Storm Drainage Plan and Profile	IX-30	1	2										1			1	1	1				
	○ Water and Sewer Plan and Profile	IX-34	1	2	1			1							1	1	1	1	1				
	~~● Roadway Plan and Profile~~	IX-28	1	2										1									
	~~● Road Cross-Sections~~	IX-27	1	2																			
	○ Detail Sheet	IX-12	1	2																			
	● Landscape Plan	IX-20	2	1	1																		
K.H.	● Geotechnical Report 1 + 2 Briefs	X-8	1	1								1											
	~~● Final Drainage Report~~ (City)	X-5,6	1	2										1									
	○ Stormwater Management Plan	X-14	1	2										1							1		
	○ Phase I and II Environmental Report	X-10,11	1	1																			
	○ Traffic Impact Study	X-15	1	2																1			
	~~As req'd for off-site roadway~~																						

NOTES:
1) An asterisk in the item description column indicates that a form is supplied by the City.
2) Required submittal items and distribution are indicated by filled in circles, some of which may be filled in during the pre-application conference. Additional items or copies may be subsequently requested in the review process.
3) Each submitted item must be labeled, named, or otherwise identified as described above in the description column.

DRAWING STANDARDS CHECKLIST

GRADING AND DRAINAGE PLAN

ITEM		GRAPHIC STANDARDS	OK	NA
SECTION VIII	A	Scale: Match the Site Plan scale		
	B	Drawing size: 24" x 36"		
	C	Primary features consist only of proposed: grading and drainage facilities		
	D	Notation: All non-construction text, and also construction notation for all primary features		
	E	Line weights of existing and proposed (secondary and primary) features per City standards		
	F	Location: All primary facilities are fully located horizontally and vertically	X	
	G	Horizontal control: Subdivisions and all public utilities (final drawings) tied to Section aliquot corners		
	H	Vertical control: Benchmarks on U.S.G.S. datum if public facilities other than SW are proposed	X	
	I	Orientation and north arrow		
	J	Stamped and sealed drawings by registered professional competent in the work		
	K	Title block with names, titles, preparation and revision dates		
	L	Reference to City Standard Drawings and Specifications		
	M	Legend of symbols used		
	N	List of abbreviations used		
	P	Multiple sheets provided with overall graphical key and match lines		
	Q	Contouring interval and extent		
	R	Neatness and legibility		

ITEM		FEATURES	OK	NA
→	1	Use the Site Plan as a base map or otherwise provide the same information.		
ADDITIONAL INFORMATION	2	Add existing contours.		
	3	Add proposed contours. Do not show them under buildings or at concrete and asphalt pavement locations.		
	4	Finish floor elevations are provided and are at least 1.0 foot above 100-year flood level, and 0.5 foot above the site outfall.		
	5	Show grades at all points of curvature, angle, tangency, grade breaks and changes, swales, channels, pipes, inlets, and other primary features.	X	
	6	Provide grade slopes between elevations provided in (5) above.	X	
	7	Show detention/retention basins with contours (off pavement) or delineation (on pavement).		
	8	Indicate 2- and 100-year runoff storage volumes and ponded water surface elevation.	X	
	9	If the site involves 5 acres or more that will be disturbed, then:		
		a. Show or identify limits of surface disturbance due to construction		
		b. Identify areas to be used for storage of building materials, fuels, or wastes		
		c. Show location, type, and extent of BMP and erosion control practices.		
	10	Space for approval signature by City Engineering with date and title.	X	

COMMENTS

1 This plan may also have full horizontal control on it if not provided on the Site Plan.

FS:PROJRPT.VCB:085

VISITOR & CONVENTION BUREAU
GENERAL PROJECT REPORT

The project provides for the Grand Junction Visitor Center and offices for the Visitor and Convention Bureau. It is located on a 3/4 acre site at 740 Horizon Drive directly behind Taco Bell. This location will allow the VCB to be more visible and accessible to the tourist traffic along Horizon Drive and I-70 to better serve the needs of the entire community.

The project complies with the existing HO zoning of the site, including the buffer between the adjacent residential uses. Site access is via the State access road along I-70. Use of this road was given by permit from the State. All required utilities are available at the site, with exception of sewer which is being extended to Horizon Drive down the access road. No special demands will be placed on the utilities or public services. The site geology is characteristic of the area and does not preclude the development of this project. The impact on surface drainage has been resolved by providing minor on-site retention areas per City of Grand Junction Engineering Department.

The hours of operation vary seasonally in the Visitor Center--9-5 off-season, 9-8 in the summer season. The VCB office hours are generally 9-5. Simple signage is planned and is to be located on the building--one "Visitor Center" sign on the north side and one on the west side. Additional directional, parking, and informational signage will be provided.

The project is expected to go out for bids the last part of July 1993 and will be occupied in late 1993 or early 1994.

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Dave Thornton

GRAND JUNCTION, COLORADO

VISITOR & CONVENTION BUREAU

MEMORANDUM

TO: John Shaver

FROM: Debbie Kovalik

DATE: December 3, 1992

RE: Meeting With Warren Brown

Warren Brown owns a house at 2770 Nine Iron Drive, which is adjacent to the location of the new Visitor Information Center. On at least one occasion, Mr. Brown had spoken with Andrew Schmidt and expressed his concerns and displeasure with the site for the VIC. I called Mr. Brown and invited him to the VCB office to discuss his concerns. Present for that meeting on November 23 were: Frank Bering, Chairman of the VCB Board; Ken Hunt, Dillon-Hunt P.C.; Dave Thornton, Community Development; Mr. Brown and myself.

Brown stated that he bought his current home (purchased in 1990) for the unobstructed view of the Bookcliffs. He also has an unobstructed view of the airport, Ramada Inn and Hilton. It might cost him a lot of money to fight this project, but he will go to court to prevent construction. He believes there is legal precedent that prevents new construction from blocking the view of current property owners. Frank and Ken showed Brown the model, discussed the layout of the building and property, and advised him that 6 ft of soil will be graded off the highest portion of the site before construction begins. Brown stated that he didn't buy his house to see someone else's roof. He believes that the roof of the Visitor Center should not be higher than the roof of Taco Bell.

Frank said the VCB had been working on a new Visitor Center site for two years, that this matter had been in the local paper quite a lot, and wondered why Brown had not come forward with his concerns/comments before. Frank went to the site the morning of this meeting and walked the property. It appeared to him that the yellow house on Nine Iron Drive might be more impacted than Brown's. From the site, Frank could see one window of Brown's house but trees obstructed a view of the rest of his house.

Frank also noted that there is a space of at least 200 ft from the back of the Visitor Center to the closest part of Brown's home. Frank also described the restrictions on use of the building if the VCB leases the land and pointed out that the VCB chose to move the building forward away from private residences.

Frank asked how Brown would like to see this problem resolved. Brown responded: "Put the VCB in Bakersfield and blow up the Taco Bell sign"; the VCB could buy his house and then burn it down if they wanted. Ken remarked that there are two sides to being good neighbors; we'll do what the regulations permit and do the best we can along the way. Brown said if the Visitor Center is an obnoxious building and devalues his property, there will be a problem; his is the largest and most valuable house in the neighborhood.

Dave Thornton pointed out that zoning regulations allow for a 65 ft tall building to be constructed on the Visitor Center site. Ken stated that his design did take into consideration residential concerns, but that he has maximized the site for the VCB within the existing planning and zoning regulations. It was agreed that Ken would run site lines from Brown's house to the VIC, then a helium balloon will be floated to give a true perspective of the size/height of the building. Brown stated he doesn't need to set a day or time for the balloon float. When this is ready to be done, someone can call and he can be at the site within 10 minutes.

c: Mark Achen
Frank Bering
Ken Hunt
Dave Thornton

City of Grand Junction, Colorado
250 North Fifth Street
81501-2668
FAX: (303) 244-1599

December 22, 1992

Lezlie Brown
Grand Valley Consulting Engineers, Inc.
827 Rood Avenue
Grand Junction, CO 81501

Re: Grand Junction Visitor Center

Dear Ms. Brown:

The City has drawings referencing the locations of sanitary sewer lines in Horizon Drive which you are more than welcome to come in and look at or purchase prints. It has been the policy of the City not to redline drawings for design purposes. Field locates of all utilities need to be done to insure accuracy and adequacy of information.

In reference to the service sizes, the City Public Works Department has no jurisdiction over service sizing. Sizes are determined by the Engineer and approved by Mesa County Building Department. It does, however, appear the service sizes for water and sewer as proposed will be adequate.

You may be required to install a fire line to the property and a hydrant if there are not hydrants within 150 feet of the property frontage or within 150 feet of the proposed structure on private property. The Grand Junction Fire Department has authority over the placement of hydrants. Contact George Bennett at 244-1400 on information pertaining to hydrant requirements.

Please contact me at 244-1590 if you have any questions on the above.

Sincerely,
FOR THE CITY OF GRAND JUNCTION

Bill Cheney

Bill Cheney
Utility Engineer

cc: City of Grand Junction, Community Development Department
Gerald Williams, Development Engineer
George Bennett, Grand Junction Fire Department

EXISTING CONDITION

AREA "NE"

Total Area = 0.52 AC

Assume C&D soil, $C_2 = 0.20$ $C_{100} = 0.35$

Tc time (All T_o)

T_o: L = 240', S = 15%, N = 0.10 $\therefore (T_o)(i^{.4}) = \frac{.93L^{.6}N^{.6}}{S^{.3}} = 11.1$

For 2 yr, $T_{o_2} = 10$ min

For 100 yr, $T_{o_{100}} = 6$ min

$Q = CIA$

$Q_2 = (0.20)(1.52)(0.52) = 0.158 \cong 0.2$ cfs

$Q_{100} = (0.35)(4.65)(0.52) = 0.846 \cong 0.9$ cfs

AREA "SE"

Total Area = 0.83 AC

Assume C&D soil, $C_2 = 0.20$, $C_{100} = 0.35$

Tc time:

T_o L = 300', S = 26%, N = 0.10 $\therefore (T_o)(i^{.4}) = 21.4$

$T_{o_2} = 21$ min $T_{o_{100}} = 13$ min

T_s L = 110', S = 15%, 3.8 fps $\cong 1$ min

$T_c = T_o + T_s$

$T_{c_2} = 22$ min $T_{c_{100}} = 14$ min

$Q = CIA$

$Q_2 = (0.20)(1.05)(0.83) = 0.17 \cong 0.2$ cfs

$Q_{100} = (0.35)(3.33)(0.83) = 0.97 \cong 1.0$ cfs

PROPOSED CONDITION

AREA "N4"

Area = 0.08 AC

$C_2 = 0.20$, $C_{100} = 0.35$

$Tc_2 = Tc_{100} = 5$ min

$Q = CIA$ $\quad Q_2 = (0.2)(1.95)(.08) = .03 \triangleq 0$ (see balance with "N1" & "N=")

$Q_{100} = (0.35)(4.95)(.08) = 0.14$ CFS $\triangleq 0.1$ CFS

AREA "S1"

Area = 0.51 AC (50% Asphalt, 50% Landscape)

$C_2 = 0.59$ $\quad C_{100} = 0.68$ (See area "N3")

Tc Value

Landscape To: L = 155, S = 1%, N = 0.10, $To(.4) = 19$ $\quad To_2 = 18$ $To_{100} = 11$

Asphalt To: L = 60, S = 5.7%, N = .08, $To^{.4} = 4.2$ $\quad To_2 = 1$ $To_{100} = 1$

Ts: L = 220', S = 5%, V = [illegible], Ts = 1

$Tc_2 = 18 + 1 + 1 = 20$ min, $i = 1.11$

$Tc_{100} = 11 + 1 + 1 = 13$ min, $i = 3.43$

$Q = CIA$ $\quad Q_2 = (0.59)(1.11)(.51) = 0.3$ CFS

$Q_{100} = (0.68)(3.43)(.51) = 1.2$ CFS

AREA "S2"

Area = 0.25 AC (30% hardscape, 70% greenscape)

$C_2 = .3(.98) + .7(25) = .45$ $\quad C_{100} = .3(.95) + .7(.40) = 0.57$

Tc To: L = 110, S = .05, N = .05, $To^{.4} = 12.7$

$To_2 = 11$ min, $i = 1.46$

$To_2 = 7$ min, $i = 4.40$

$Q = CIA$ $\quad Q_2 = (.45)(.25)(1.46) = 0.2$ CFS

$Q_{100} = (.57)(.25)(4.40) = 0.6$ CFS

PROPOSED CONDITION

AREA "S3"

Area = 0.06 (20% pavement, 80% landscape)

$C_2 = (.2)(.25) + .8(.90) = 0.77$ $C_{100} = .2(.40) + .8(.95) = 0.84$

$T_{C2} = T_{C100} = 5$ min , $i = 1.95, 4.95$

$Q = CiA$ $Q_2 = (0.77)(1.95)(.06) = 0.1$ CFS

$Q_{100} = (0.84)(4.93)(.06) = 0.2$ CFS

HISTORIC RUNOFF FROM SITE

	North	South
Q_{2h}	0.2	.2
Q_{100h} =	0.8	1.0

This is also the allowed runoff from the site in the historic condition.

Q0 bleedoff = historic runoff minus direct runoff

NORTH $Q0_2 = Qh_2 - N1 - N2 - N4$
$= 0.2 - 0.1 - 0 - 0 = 0.1$ CFS

$Q0_{100} = Qh_{100} - N1 - N2 - N4$
$= 0.8 - 0.2 - 0.1 - 0.1 = 0.4$ CFS

FROM "N3"

SOUTH $Q0_2 = Qh_2 - S3$
$= 0.2 - 0.1 = 0.1$ CFS

$Q0_{100} = Qh_{100} - S3$
$= 1.0 - 0.2 = 0.8$ CFS

FROM "S1" & "S2"

N3 WATERSHED

$Qo_2 max$ = 0.1 CFS (Assume, with drop inlets, that $Qo_{AVG} \simeq Qo_{max}$ for 2 year – Note: Q_2 for N3 = 0.3 cfs)

$Td_2 = [633.4 \times .58 \times .30 / (.1 - .1^2 \times 5/(81.2 \times .58 \times .30))]^{.5} - 15.6$

$= 18.2$

$Id_2 = 40.6/(18.2 + 15.6) = 1.2$

$Qd = (0.58)(.30)(1.2) = 0.21$ CFS

$K = Tc_h / Tc_d = 1$

$V_2 = 66[Q_dT_d - Q_oT_d - Q_oTc_d + K\,Q_oTc_d/2 + Q_o^2Tc_d/(2Q_d)]$

$= 66[.21 \times 18.2 - .1 \times 18.2 - .1 \times 5 + 1 \times .1 \times 5/2 + .1^2 \times 5/(2 \times .21)]$

$= 123\ ft^3$

Qo_{100} max = 0.4 CFS (assume 0.75 Q_{max} = 0.3 CFS)

$Td_{100} = [2925 \times .68 \times .30/(.3 - .3^2 \times 5/(234 \times .68 \times .30))]^{.5} - 25$
$= 20.3$

$Id_{100} = 117/(Td_{100} + 25) = 2.58$

$Qd = (0.68)(.30)(2.58) = 0.53$

$K = 1$

$V_{100} = 66[.53 \times 20.3 - .3 \times 20.3 - .3 \times 5 + 1 \times .3 \times 5/2 + .3^2 \times 5/(2 \times .53)]$

$= 287\ ft^3$

VOL	Qo
0	0
123	0.1
287	0.4

Release is to inlet in roadside swale

S1 & S2 WATERSHED ($C_{d_2} = (.25 \times .45 + .51 \times .58)/(.25+.51) = 0.54$; Area = 0.76 Ac)

$Q_{0_2\ max} = 0.1$ CFS — assume $Q_{0_2\ avg} = Q_{0_2\ max}$ due to steep inlet

$$Td_2 = [633.4 \times .54 \times .76/(.1 - .1^2 \times 20/(81.2 \times .54 \times .76))]^{.5} - 15.6$$
$$= 37.0$$

$$Id_2 = 40.6/(37.0 + 15.6) = 0.77$$

$$Q_d = (0.54)(.76)(0.77) = 0.32$$

$$K = Tc_h / Tc_d = 22/20 = 1.1$$

$$V_2 = 66[.32 \times 37.0 - .1 \times 37.0 - .1 \times 20 + 1.1 \times .1 \times 20/2 + .1^2 \times 20/(2 \times .32)]$$
$$= 498 \text{ ft}^3$$

$Q_{0_{100}\ max} = 0.8$ CFS ($C_{d_{100}} = (.25 \times .57 + .51 \times .68)/(.25+.51) = 0.64$; Area = 0.76 Ac)

However, the 4" perforated PVC pipe at 2-3% slope has a capacity at about 0.3 CFS max, which would be achieved through most of the runoff period, therefore, $Q_{0_{100}\ avg} = 0.3$

$$Td_{100} = [2925 \times .64 \times .76/(.3 - .3^2 \times 13/(2 \times 34 \times .64 \times .76))]^{.5} - 25$$
$$= 45.1$$

$$Id_2 = 117/(Td_{100} + 25) = 1.67$$

$$Q_d = (.64)(.76)/(1.67) = 0.81$$

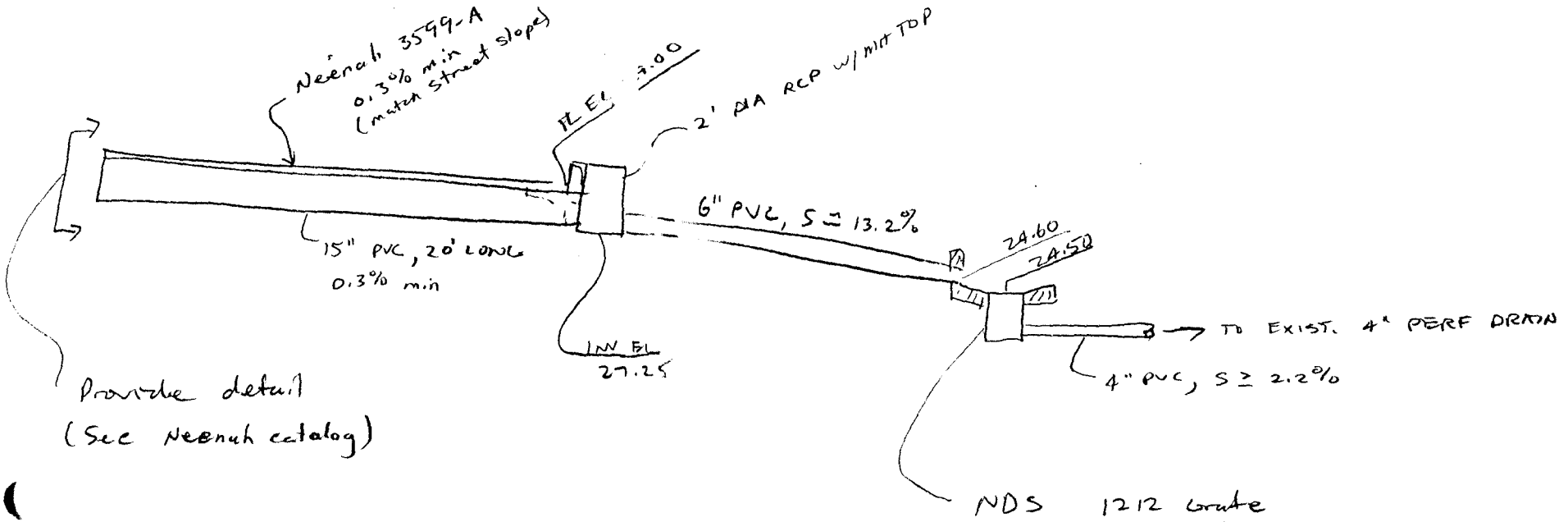
$$K = 14/13 = 1.1$$

$$V_{100} = 66[.81 \times 45.1 - .3 \times 45.1 - .3 \times 13 + 1.1 \times .3 \times 13/2 + .3^2 \times 13/(2 \times .81)]$$
$$= 1450 \text{ ft}^3$$

VOL	Q_0
0	0
498	.1
1450	.3

SOUTH SIDE

CHANGE THIS CONCEPT DWG INTO SOMETHING REAL, TO SCALE



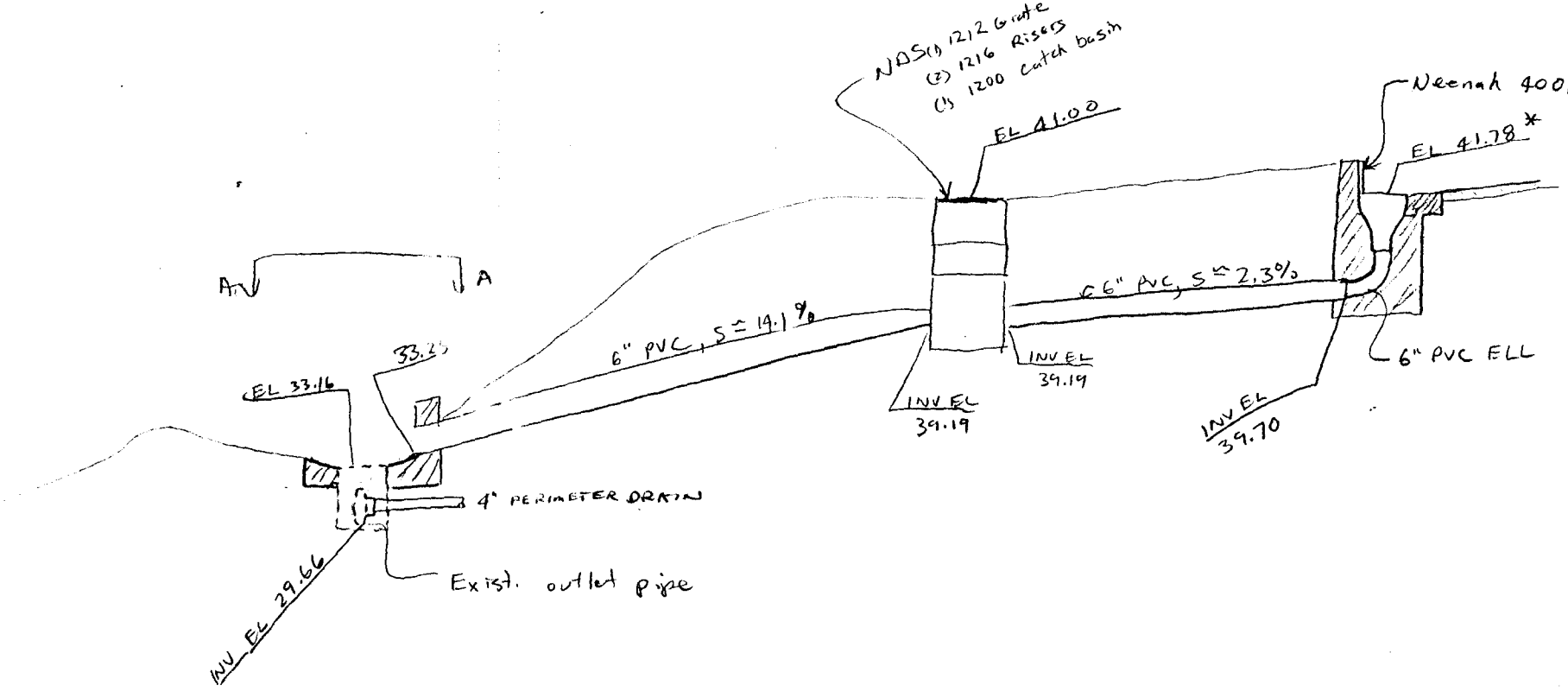
NDS
1212 Grate
1200 Catch basin
1206 plug
1243 outlet adaptor

V_2 = 49
V_{100} = 1450 ft³

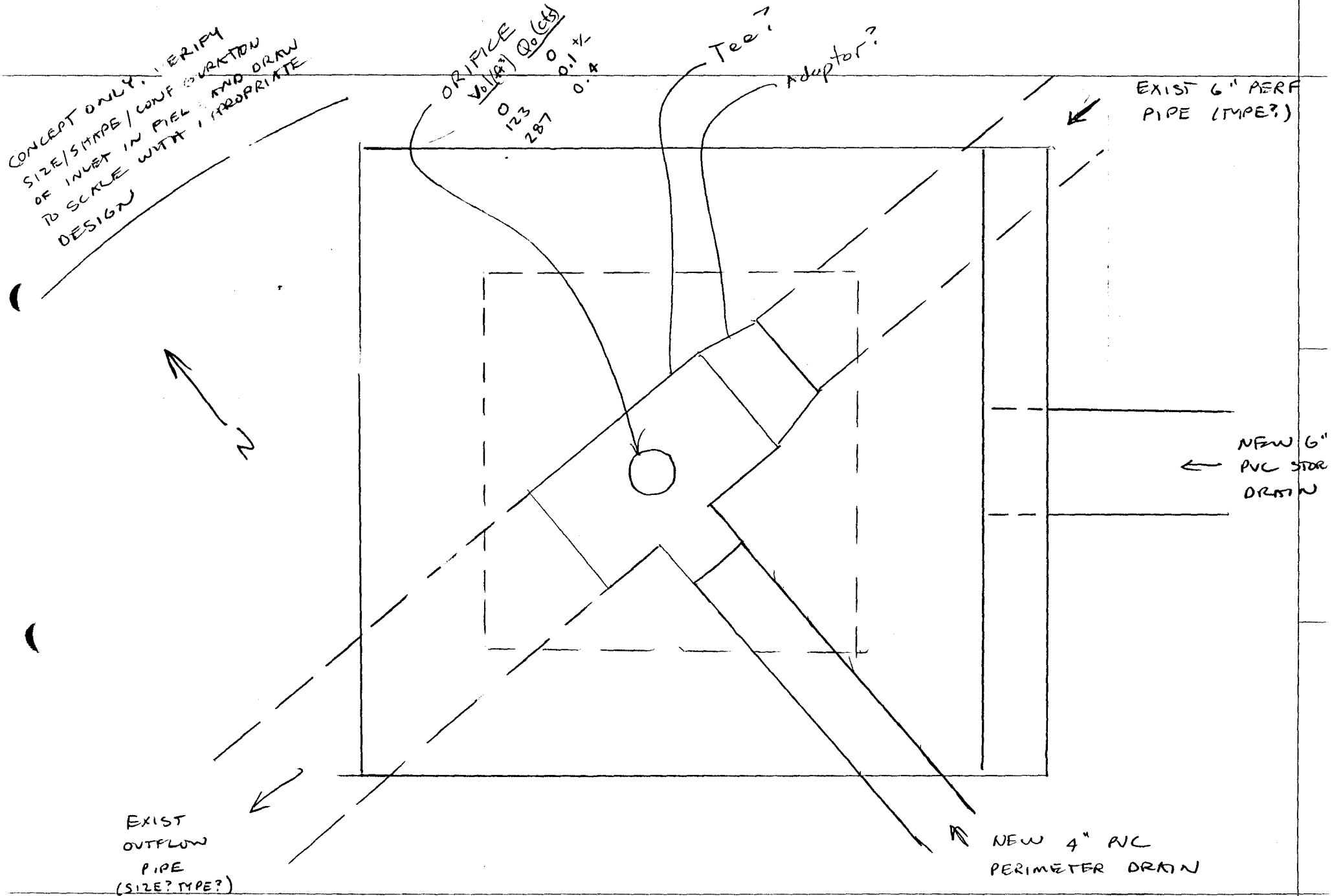
No orifice reqd.
Outlet pipe controls
hydraulics.

NORTH DRAIN

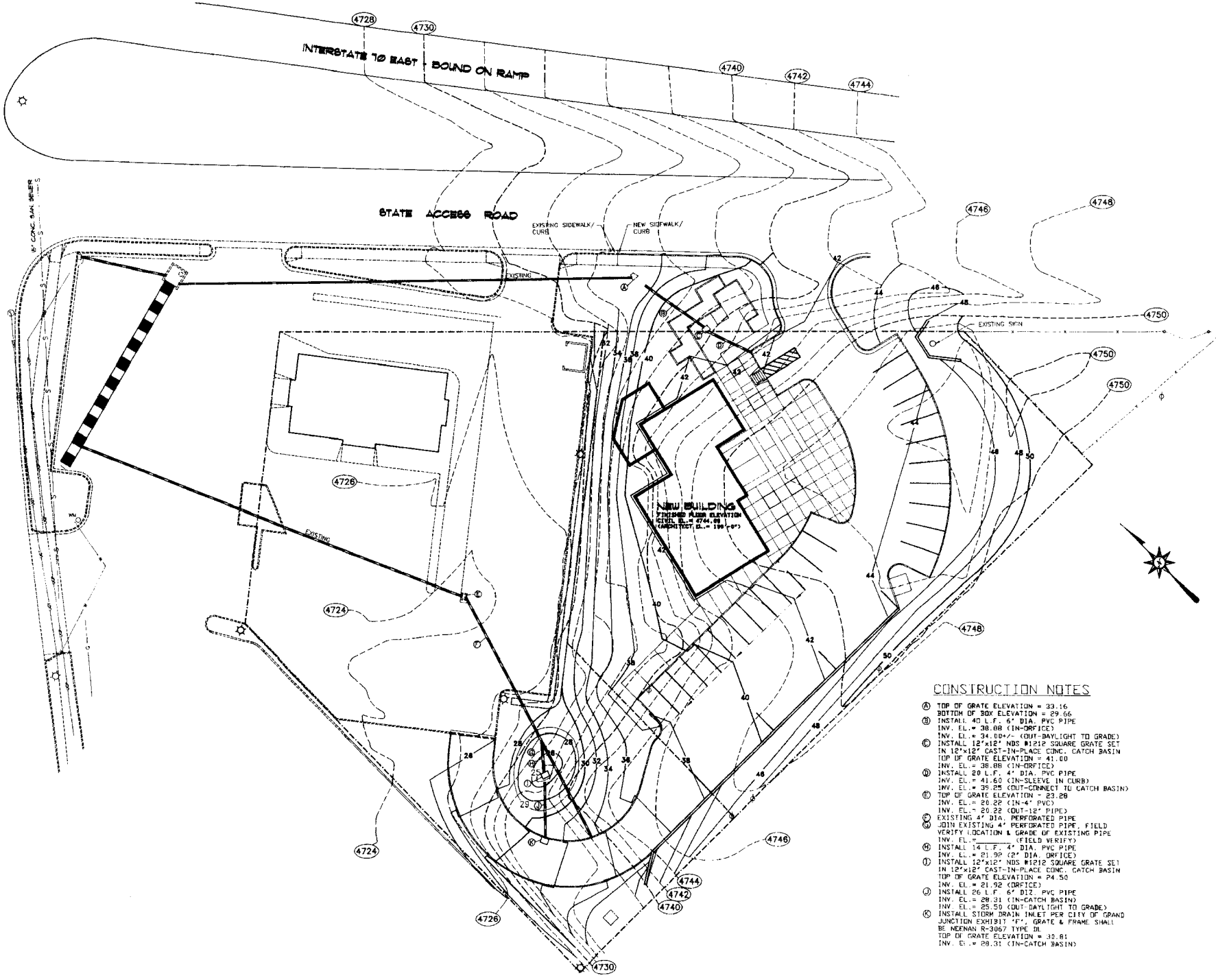
CHANGE THIS CONCEPT DWG INTO A REAL PROFILE DRAWING (TO SCALE)



* You have not provided an adequate grading plan, but extrapolating contours, I've started with 41.78.


CONCEPT ONLY. VERIFY SIZE/SHAPE/CONFIGURATION OF INLET IN FIELD AND DRAW TO SCALE WITH APPROPRIATE DESIGN
ORIFICE
Vo (ft³) Qo (cfs)
0 +/-
0.1 +/-
0.
0
123
287
Tee?
Adaptor?
EXIST 6" PERF PIPE (TYPE?)
N
NEW 6" PVC STOR DRAIN
EXIST OUTFLOW PIPE (SIZE? TYPE?)
NEW 4" PVC PERIMETER DRAIN

SECTION A-A



CONSTRUCTION NOTES

(A) TOP OF GRATE ELEVATION = 33.16
BOTTOM OF BOX ELEVATION = 29.66
(B) INSTALL 40 L.F. 6" DIA. PVC PIPE
INV. EL.= 38.88 (IN-ORFICE)
INV. EL.= 34.00+/- (OUT-DAYLIGHT TO GRADE)
(C) INSTALL 12"x12" NDS #1212 SQUARE GRATE SET IN 12"x12" CAST-IN-PLACE CONC. CATCH BASIN
TOP OF GRATE ELEVATION = 41.00
INV. EL.= 38.88 (IN-ORFICE)
(D) INSTALL 20 L.F. 4" DIA. PVC PIPE
INV. EL.= 41.60 (IN-SLEEVE IN CURB)
INV. EL.= 39.25 (OUT-CONNECT TO CATCH BASIN)
(E) TOP OF GRATE ELEVATION = 23.28
INV. EL.= 20.22 (IN-4" PVC)
INV. EL.= 20.22 (OUT-12" PIPE)
(F) EXISTING 4" DIA. PERFORATED PIPE
(G) JOIN EXISTING 4" PERFORATED PIPE, FIELD VERIFY LOCATION & GRADE OF EXISTING PIPE
INV. EL.= _____ (FIELD VERIFY)
(H) INSTALL 14 L.F. 4" DIA. PVC PIPE
INV. EL.= 21.92 (2" DIA. ORFICE)
(I) INSTALL 12"x12" NDS #1212 SQUARE GRATE SET IN 12"x12" CAST-IN-PLACE CONC. CATCH BASIN
TOP OF GRATE ELEVATION = 24.50
INV. EL.= 21.92 (ORFICE)
(J) INSTALL 26 L.F. 6" DIZ. PVC PIPE
INV. EL.= 28.31 (IN-CATCH BASIN)
INV. EL.= 25.50 (OUT-DAYLIGHT TO GRADE)
(K) INSTALL STORM DRAIN INLET PER CITY OF GRAND JUNCTION EXHIBIT "F", GRATE & FRAME SHALL BE NEENAN R-3067 TYPE DI
TOP OF GRATE ELEVATION = 30.81
INV. EL.= 28.31 (IN-CATCH BASIN)

DILLON–HUNT P.C.
ARCHITECTURE AND FACILITY MANAGEMENT
804 GRAND AVENUE
GRAND JUNCTION, CO. 81501
(303) 245-7363
(303) 245-7437 (FAX)

PROJECT PHASE: CD
APPROVED BY:

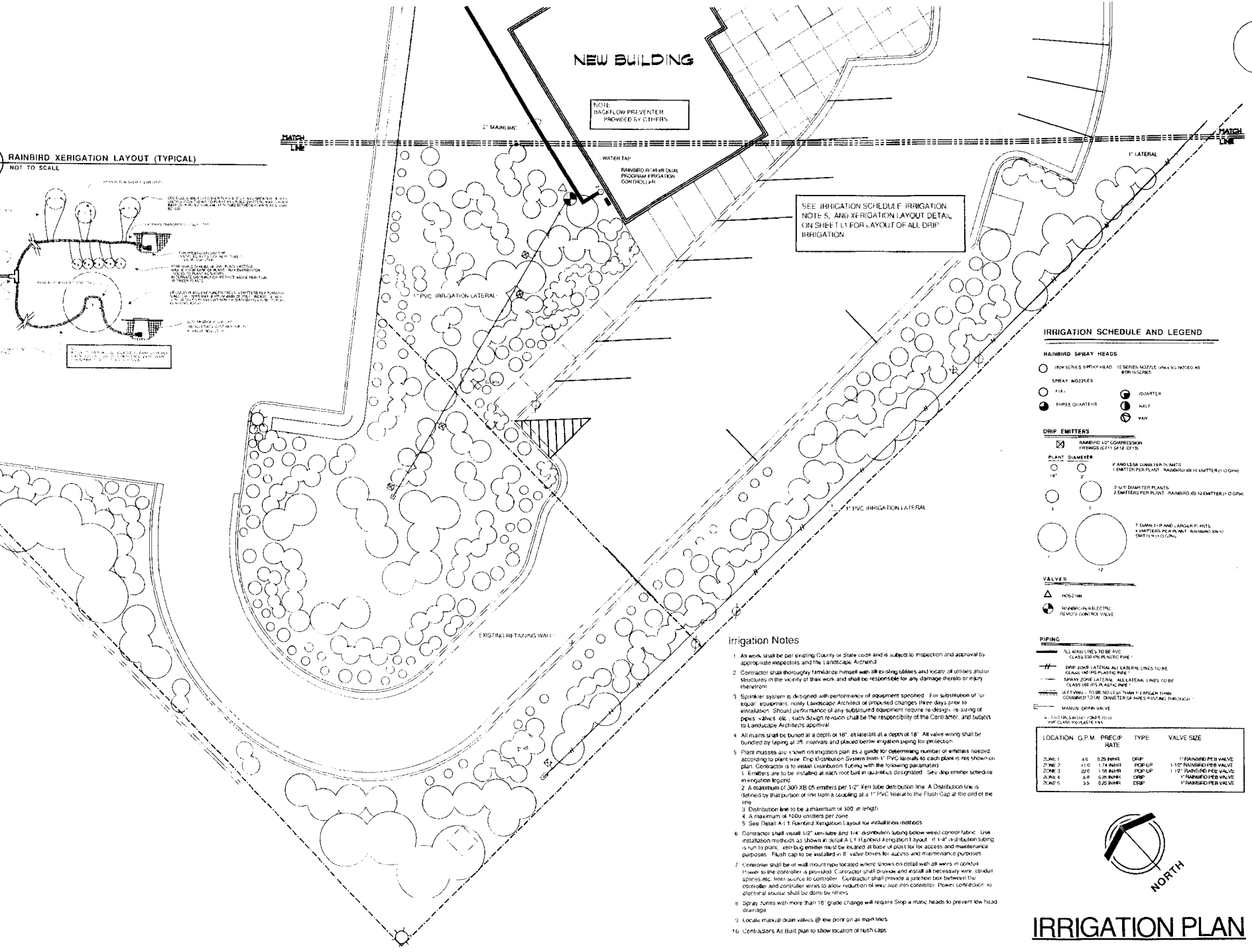
PROJECT NO. 9205
DATE ISSUED 07-07-93
TIME ISSUED 23:23
DRAWN BY ROLLAND ENG.
SCALE 1"=20'-0"
SHEET SIZE 36x24

Official
Do NOT Remove
From Office

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

98 92

SHEET NO.
C2
OF 2



IRRIGATION SCHEDULE AND LEGEND

RAINBIRD SPRAY HEADS

1804 SERIES SPRAY HEAD 12 SERIES NOZZLE UNLESS NOTED AS #OR 15 SERIES

SPRAY NOZZLES

FULL — QUARTER — THREE QUARTERS — HALF — MAN

DRIP EMITTERS

RAINBIRD 1/2" COMPRESSION FITTINGS (CF11 CF12 CF13)

PLANT DIAMETER

9" AND LESS DIAMETER PLANTS 1 EMITTER PER PLANT RAINBIRD XB-10 EMITTER (1.0 GPH)

3' to 5' DIAMETER PLANTS 2 EMITTERS PER PLANT RAINBIRD XB-10 EMITTER (1.0 GPH)

7' DIAMETER AND LARGER PLANTS 4 EMITTERS PER PLANT RAINBIRD XB-10 EMITTER (1.0 GPH)

VALVES

HOSE BIB

RAINBIRD IN-ELECTRIC REMOTE CONTROL VALVE

PIPING

ALL MAIN LINES TO BE PVC CLASS 200 PSI PLASTIC PIPE

DRIP ZONE LATERAL ALL LATERAL LINES TO BE CLASS 160 PSI PLASTIC PIPE

SPRAY ZONE LATERAL ALL LATERAL LINES TO BE CLASS 160 PSI PLASTIC PIPE

SLEEVING - TO BE NO LESS THAN 1" LARGER THAN COMBINED TOTAL DIAMETER OF PIPES PASSING THROUGH

MANUAL DRAIN VALVE

ALL LATERALS IN DRIP ZONES TO BE 1/2" CLASS 200 PLASTIC PIPE

LOCATION	G.P.M.	PRECIP RATE	TYPE	VALVE SIZE
ZONE 1	4.0	0.25 IN/HR	DRIP	1" RAINBIRD PEB VALVE
ZONE 2	11.0	1.74 IN/HR	POP-UP	1-1/2" RAINBIRD PEB VALVE
ZONE 3	22.0	1.58 IN/HR	POP-UP	1 1/2" RAINBIRD PEB VALVE
ZONE 4	4.0	0.25 IN/HR	DRIP	1" RAINBIRD PEB VALVE
ZONE 5	3.5	0.25 IN/HR	DRIP	1" RAINBIRD PEB VALVE

Irrigation Notes

1. All work shall be per existing County or State code and is subject to inspection and approval by appropriate inspectors and the Landscape Architect.
2. Contractor shall thoroughly familarize himself with all existing utilities and locate all utilities and/or structures in the vicinity of their work and shall be responsible for any damage thereto or injury therefrom.
3. Sprinkler system is designed with performance of equipment specified. For substitution of "or equal" equipment, notify Landscape Architect of proposed changes three days prior to installation. Should performance of any substituted equipment require re-design, re-sizing of pipes, valves, etc., such design revision shall be the responsibility of the Contractor, and subject to Landscape Architects approval.
4. All mains shall be buried at a depth of 18". All laterals at a depth of 18". All valve wiring shall be bundled by taping at 25' intervals and placed below irrigation piping for protection.
5. Plant masses are shown on irrigation plan as a guide for determining number of emitters needed according to plant size. Drip Distribution System from 1" PVC laterals to each plant is not shown on plan. Contractor is to install Distribution Tubing with the following parameters:
   1. Emitters are to be installed at each root ball in quantities designated. See drip emitter schedule in irrigation legend.
   2. A maximum of 300 XB 05 emitters per 1/2" Xeri-tube distribution line. A Distribution line is defined by that portion of line from a coupling at a 1" PVC lateral to the Flush Cap at the end of the line.
   3. Distribution line to be a maximum of 300' in length.
   4. A maximum of 1000 emitters per zone.
   5. See Detail A-1 Rainbird Xerigation Layout for installations methods.
6. Contractor shall install 1/2" xeri-tube and 1/4" distribution tubing below weed control fabric. Use installation methods as shown in detail A-1 Rainbird Xerigation Layout. If 1/4" distribution tubing is run to plant, xeri-bug emitter must be located at base of plant for for access and maintenance purposes. Flush cap to be installed in 8" valve boxes for access and maintenance purposes.
7. Controller shall be of wall mount type located where shown on detail with all wires in conduit. Power to the controller is provided. Contractor shall provide and install all necessary wire, conduit splices etc., from source to controller. Contractor shall provide a junction box between the controller and controller wires to allow reduction of wire size into controller. Power connection to electrical source shall be done by others.
8. Spray zones with more than 18" grade change will require Stop-a-matic heads to prevent low head drainage.
9. Locate manual drain valves @ low point on all main lines.
10. Contractor's As Built plan to show location of flush caps.

NORTH

IRRIGATION PLAN

DILLON--HUNT P.C.
ARCHITECTURE AND FACILITY MANAGEMENT
804 GRAND AVENUE
GRAND JUNCTION, CO. 81501
(303) 248-7383
(303) 245-7437 (FAX)

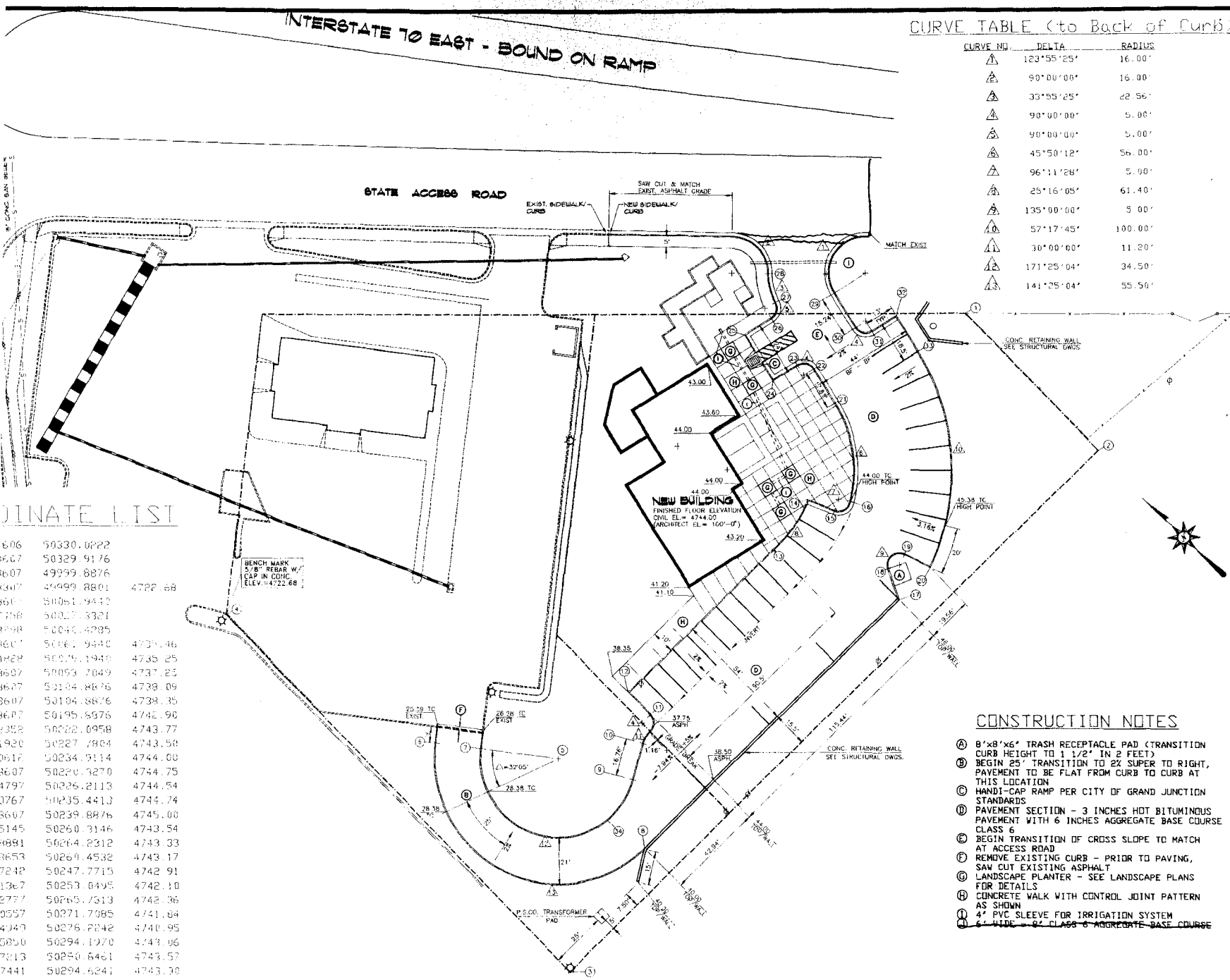
PROJECT PHASE: CD
APPROVED BY:

PROJECT NO. 9205
DATE ISSUED
TWE ISSUED
DRAWN BY
SCALE 1"=10'-0"
SHEET SIZE 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

SHEET NO. L1 OF FOUR

4-8-93



CURVE TABLE (to Back of Curb)

CURVE NO.	DELTA	RADIUS
1	123°55'25"	16.00'
2	90°00'00"	16.00'
3	33°55'25"	22.56'
4	90°00'00"	5.00'
5	90°00'00"	5.00'
6	45°50'12"	56.00'
7	96°11'28"	5.00'
8	25°16'05"	61.40'
9	135°00'00"	5.00'
10	57°17'45"	100.00'
11	30°00'00"	11.20'
12	171°25'04"	34.50'
13	141°25'04"	55.50'

DINATE LIST

8606	50330.0922	
8607	50329.9176	
8607	49999.8876	
8607	49999.8801	4722.68
8607	50061.9442	
7798	50013.3321	
8598	50046.4285	
8607	50061.9440	4735.46
8628	50075.1948	4735.25
8607	50093.7049	4737.25
8607	50104.8876	4738.09
8607	50104.8876	4738.35
8607	50195.8876	4742.90
8358	50222.0958	4743.77
8920	50227.7804	4743.50
8616	50234.5114	4744.00
8607	50220.3270	4744.75
4797	50226.2113	4744.54
0767	50235.4413	4744.74
8607	50239.8876	4745.00
5145	50260.3146	4743.54
8881	50264.2312	4743.33
8653	50269.4532	4743.17
7242	50247.7715	4742.91
8367	50253.0495	4742.10
8777	50265.7313	4742.36
0557	50271.7085	4741.84
4949	50276.8242	4740.95
5850	50294.1070	4743.06
7213	50250.6461	4743.57
7441	50294.6241	4743.38
8852	50267.3659	4744.48
8381	50303.2374	4744.46
8607	50061.9442	4735.12

CONSTRUCTION NOTES

(A) 8'x8'x6" TRASH RECEPTACLE PAD (TRANSITION CURB HEIGHT TO 1 1/2" IN 2 FEET)
(B) BEGIN 25' TRANSITION TO 2% SUPER TO RIGHT, PAVEMENT TO BE FLAT FROM CURB TO CURB AT THIS LOCATION
(C) HANDI-CAP RAMP PER CITY OF GRAND JUNCTION STANDARDS
(D) PAVEMENT SECTION - 3 INCHES HOT BITUMINOUS PAVEMENT WITH 6 INCHES AGGREGATE BASE COURSE CLASS 6
(E) BEGIN TRANSITION OF CROSS SLOPE TO MATCH AT ACCESS ROAD
(F) REMOVE EXISTING CURB - PRIOR TO PAVING, SAW CUT EXISTING ASPHALT
(G) LANDSCAPE PLANTER - SEE LANDSCAPE PLANS FOR DETAILS
(H) CONCRETE WALK WITH CONTROL JOINT PATTERN AS SHOWN
(I) 4" PVC SLEEVE FOR IRRIGATION SYSTEM
(J) 6" WIDE - 8" CLASS 6 AGGREGATE BASE COURSE

DILLON-- HUNT P.C.
ARCHITECTURE AND FACILITY MANAGEMENT
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(303) 245-7437 (FAX)

PROJECT PHASE: CD
APPROVED BY:

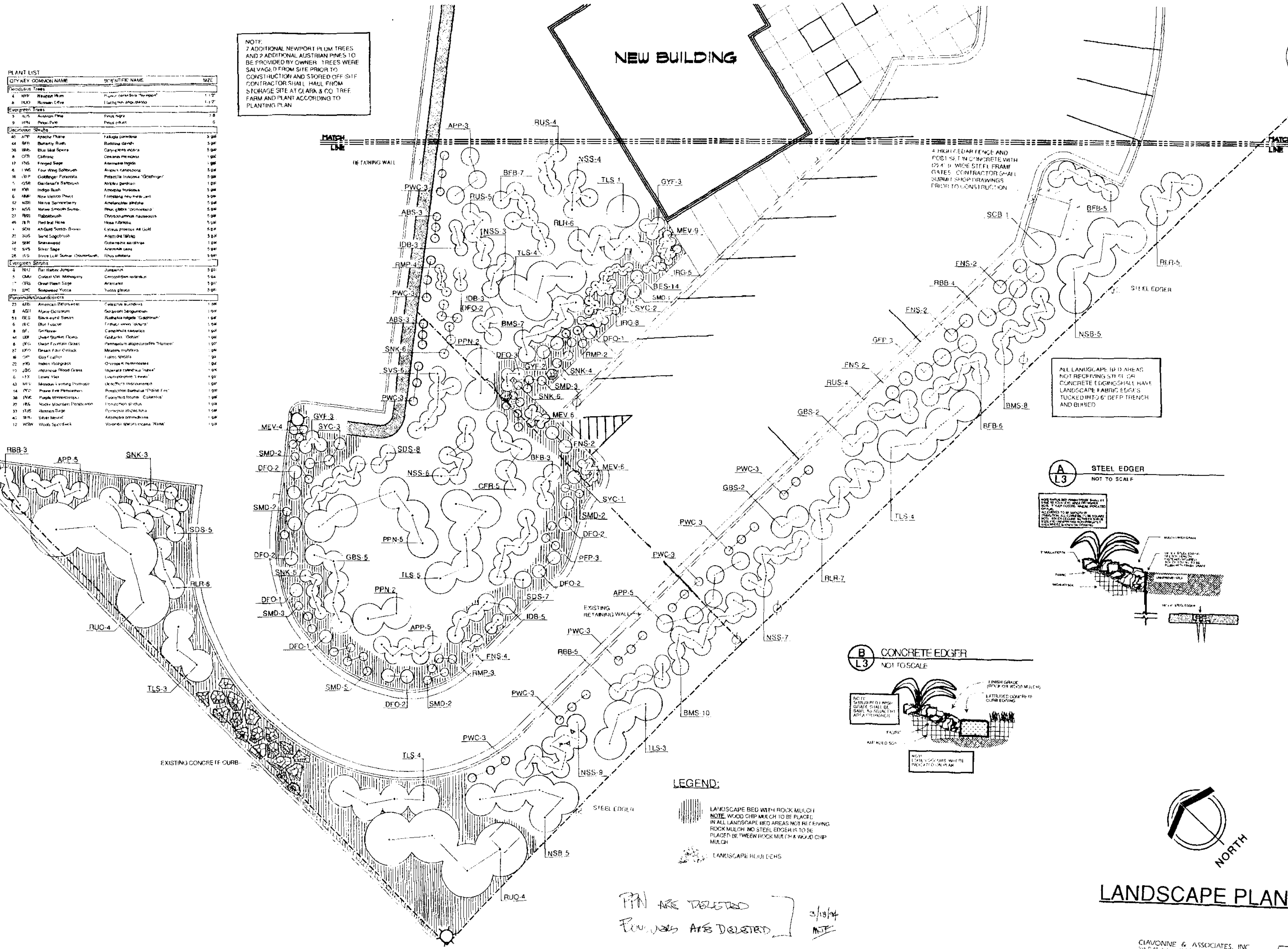
PROJECT NO. 9205
DATE ISSUED 07-07-93
TIME ISSUED 16:08
DRAWN BY ROLLAND ENG.
SCALE 1"=20'-0"
SHEET SIZE 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

SHEET NO. C1 OF 2

PLANT LIST

QTY	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE
Deciduous Trees				
4	NPP	Newport Plum	Prunus cerasifera 'Newport'	1-1/2"
8	RUO	Russian Olive	Elaeagnus angustifolia	1-1/2"
Evergreen Trees				
5	AUS	Austrian Pine	Pinus nigra	7-8
9	PPN	Pinon Pine	Pinus edulis	6
Deciduous Shrubs				
40	APP	Apache Plume	Fallugia paradoxa	5 gal
44	BFB	Butterfly Bush	Buddleia davidii	5 gal
38	BMS	Blue Mist Spirea	Caryopteris incana	5 gal
8	CFR	Cliffrose	Cowania mexicana	5 gal
12	FNS	Fringed Sage	Artemesia frigida	5 gal
6	FWS	Four Wing Saltbrush	Atriplex canescens	5 gal
16	GFP	Goldfinger Potentilla	Potentilla fruticosa 'Goldfinger'	5 gal
5	GSB	Gardener's Saltbrush	Atriplex gardneri	1 gal
16	IDB	Indigo Bush	Amorpha fruticosa	5 gal
6	NMP	New Mexico Privet	Forestiera neomexicana	5 gal
12	NSB	Native Serviceberry	Amelanchier alnifolia	5 gal
51	NSS	Native Smooth Sumac	Rhus glabra 'cismontana'	5 gal
27	RBB	Rabbitbrush	Chrysothamnus nauseosus	5 gal
49	RLR	Red-leaf Rose	Rosa rubrifolia	5 gal
1	SCB	All Gold Scotch Broom	Cytisus praecox All Gold	5 gal
22	SDS	Sand Sagebrush	Artemisia filifolia	5 gal
24	SNK	Snakeweed	Gutierrezia sarothrae	1 gal
10	SVS	Silver Sage	Artemisia cana	5 gal
28	TLS	Three Leaf Sumac (Squawbush)	Rhus trilobata	5 gal
Evergreen Shrubs				
6	BHJ	Bar Harbor Juniper	Juniperus	5 gal
5	CMM	Curlleaf Mtn. Mahogany	Cercocarpus ledifolius	5 gal
17	GBS	Great Basin Sage	Artemesia	5 gal
21	SYC	Soapweed Yucca	Yucca glauca	5 gal
Perennials/Groundcovers				
23	ABS	American Bittersweet	Celastrus scandens	1 gal
8	AGR	Alpine Geranium	Geranium Sanguineum	1 gal
51	BES	Black-eyed Susan	Rudbeckia fulgida 'Goldstrum'	1 gal
6	BFC	Blue Fescue	Festuca ovina 'glauca'	1 gal
8	BFL	Bellflower	Campanula carpatica	1 gal
44	DBF	Dwarf Blanket Flower	Gaillardia 'Goblin'	1 gal
6	DFG	Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	1 gal
27	DFO	Desert Four O'clock	Mirabilis multiflora	1 gal
16	GYF	Gay Feather	Liatris spicata	1 gal
22	IRG	Indian Ricegrass	Oryzopsis hymenoides	1 gal
10	JBG	Japanese Blood Grass	Imperata cylindrica 'rubra'	1 gal
6	LFX	Lewis' Flax	Linum perenne 'Lewisii'	1 gal
43	MEV	Missouri Evening Primrose	Oenothera missouriensis	1 gal
14	PFP	Prairie Fire Penstemon	Penstemon barbatus 'Prairie Fire'	1 gal
38	PWC	Purple Wintercreeper	Euonymus fortunei 'Coloratus'	1 gal
22	RMP	Rocky Mountain Penstemon	Penstemon strictus	1 gal
33	RUS	Russian Sage	Perovskia atriplicifolia	1 gal
43	SMD	Silver Mound	Artemesia schmidtiana	1 gal
12	WSW	Wooly Speedwell	Veronica spicata incana 'Nana'	1 gal



PPN ARE DELETED
BOULDERS ARE DELETED
3/18/94
MJF

DILLON-HUNT P.C.
ARCHITECTURE AND FACILITY MANAGEMENT
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PROJECT PHASE: CD

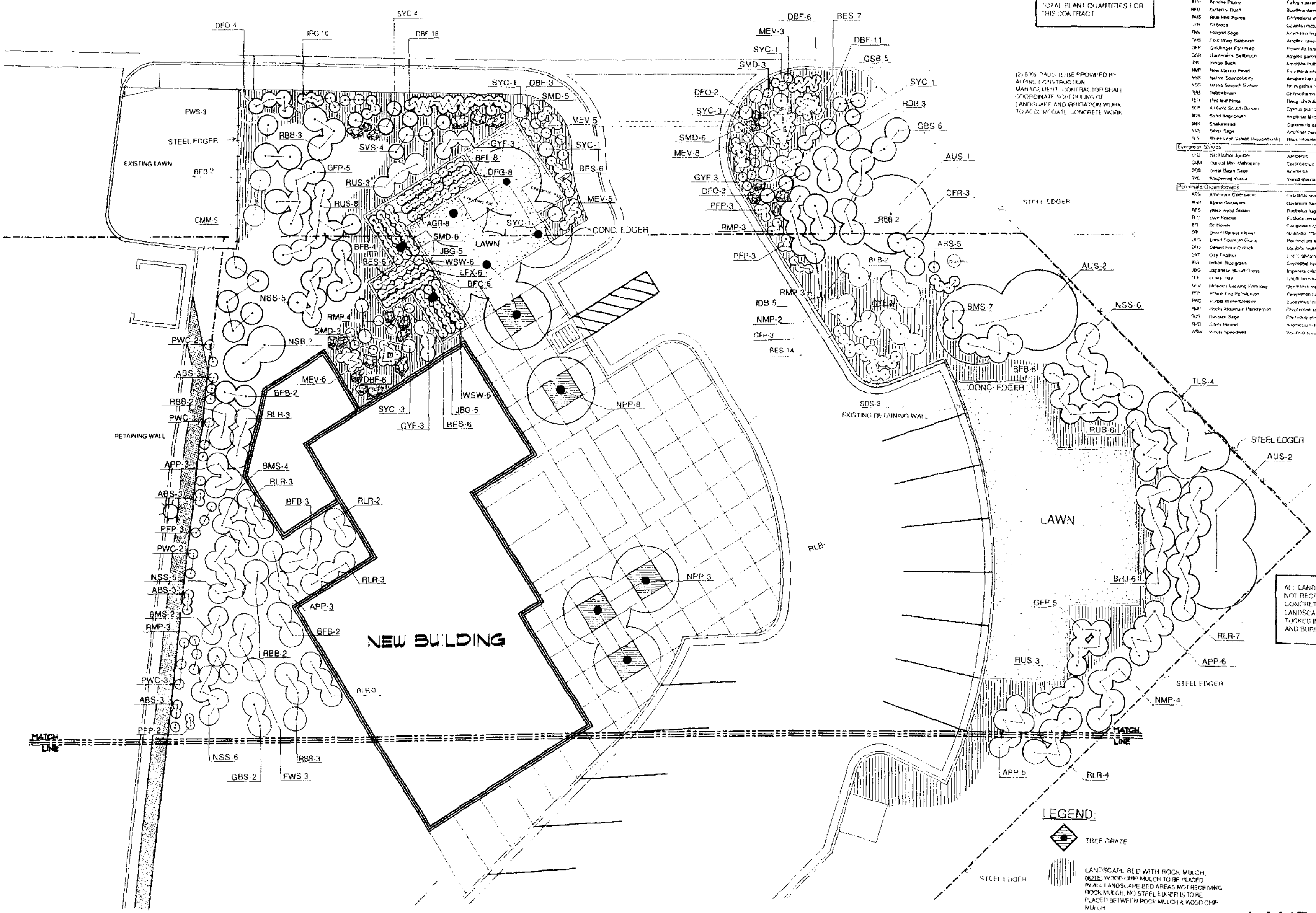
PROJECT NO. 9205
SCALE 1"=10'-0"
SHEET SIZE 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

LANDSCAPE PLAN

CIAVONNE & ASSOCIATES, INC.

SHEET NO. L3 OF FOUR



LEGEND:

TREE GRATE

LANDSCAPE BED WITH ROCK MULCH
NOTE: WOOD CHIP MULCH TO BE PLACED IN ALL LANDSCAPE BED AREAS NOT RECEIVING ROCK MULCH. NO STEEL EDGER IS TO BE PLACED BETWEEN ROCK MULCH & WOOD CHIP MULCH

LANDSCAPE BOULDERS

PLANT LIST

KEY	COMMON NAME	SCIENTIFIC NAME	SIZE
Deciduous Trees			
NPP	Newport Plum	Prunus cerasifera 'Newport'	1 1/2"
RUO	Russian Olive	Elaeagnus angustifolia	1 1/2"
Evergreen Trees			
AUS	Austrian Pine	Pinus nigra	7-8'
PPN	Pinon Pine	Pinus edulis	6'
Deciduous Shrubs			
APP	Apache Plume	Fallugia paradoxa	5 gal
BFB	Butterfly Bush	Buddleia davidii	5 gal
BMS	Blue Mist Spirea	Caryopteris incana	5 gal
CFR	Cliffrose	Cowania mexicana	1 gal
FNS	Fringed Sage	Artemisia frigida	1 gal
FWS	Four Wing Saltbrush	Atriplex canescens	5 gal
GFP	Goldfinger Potentilla	Potentilla fruticosa 'Goldfinger'	5 gal
GSB	Gardener's Saltbush	Atriplex gardneri	1 gal
IDB	Indigo Bush	Amorpha fruticosa	5 gal
NMP	New Mexico Privet	Forestiera neo-mexicana	5 gal
NSB	Native Serviceberry	Amelanchier alnifolia	5 gal
NSS	Native Smooth Sumac	Rhus glabra 'cismontana'	5 gal
RBB	Rabbitbrush	Chrysothamnus nauseosus	5 gal
RLR	Red leaf Rose	Rosa rubrifolia	5 gal
SCB	All Gold Scotch Broom	Cytisus praecox All Gold	5 gal
SDS	Sand Sagebrush	Artemisia filifolia	5 gal
SNK	Snakeweed	Gutierrezia sarothrae	1 gal
SVS	Silver Sage	Artemisia cana	5 gal
TLS	Three Leaf Sumac (Squawbush)	Rhus trilobata	5 gal
Evergreen Shrubs			
BHJ	Bar Harbor Juniper	Juniperus	5 gal
CMM	Curl-leaf Mtn. Mahogany	Cercocarpus ledifolius	5 gal
GBS	Great Basin Sage	Artemisia	5 gal
SYC	Soapweed Yucca	Yucca glauca	5 gal
Perennials/Groundcovers			
ABS	American Bittersweet	Celastrus scandens	1 gal
AGR	Alpine Geranium	Geranium Sanguineum	1 gal
BES	Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	1 gal
BFE	Blue Fescue	Festuca ovina 'glauca'	1 gal
BFL	Bellflower	Campanula carpatica	1 gal
DBF	Dwarf Blanket Flower	Gaillardia 'Goblin'	1 gal
DFG	Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	1 gal
DFO	Desert Four O'clock	Mirabilis multiflora	1 gal
GYF	Gay Feather	Liatris spicata	1 gal
IRG	Indian Ricegrass	Oryzopsis hymenoides	1 gal
JBG	Japanese Blood Grass	Imperata cylindrica 'rubra'	1 gal
LFX	Lewis Flax	Linum perenne 'Lewisii'	1 gal
MEV	Missouri Evening Primrose	Oenothera missouriensis	1 gal
PFP	Prairie Fire Penstemon	Penstemon barbatus 'Prairie Fire'	1 gal
PWC	Purple Wintercreeper	Euonymus fortunei 'Coloratus'	1 gal
RMP	Rocky Mountain Penstemon	Penstemon strictus	1 gal
RUS	Russian Sage	Perovskia atriplicifolia	1 gal
SMD	Silver Mound	Artemisia schmidtiana	1 gal
WSW	Wooly Speedwell	Veronica spicata incana 'Nana'	1 gal

LANDSCAPE PLAN

CIAVONNE & ASSOCIATES, INC.

DILLON-HUNT P.C.
ARCHITECTURE AND FACILITY MANAGEMENT
804 GRAND AVENUE
GRAND JUNCTION, CO. 81501
(303) 245-7383
(303) 245-7437 (FAX)

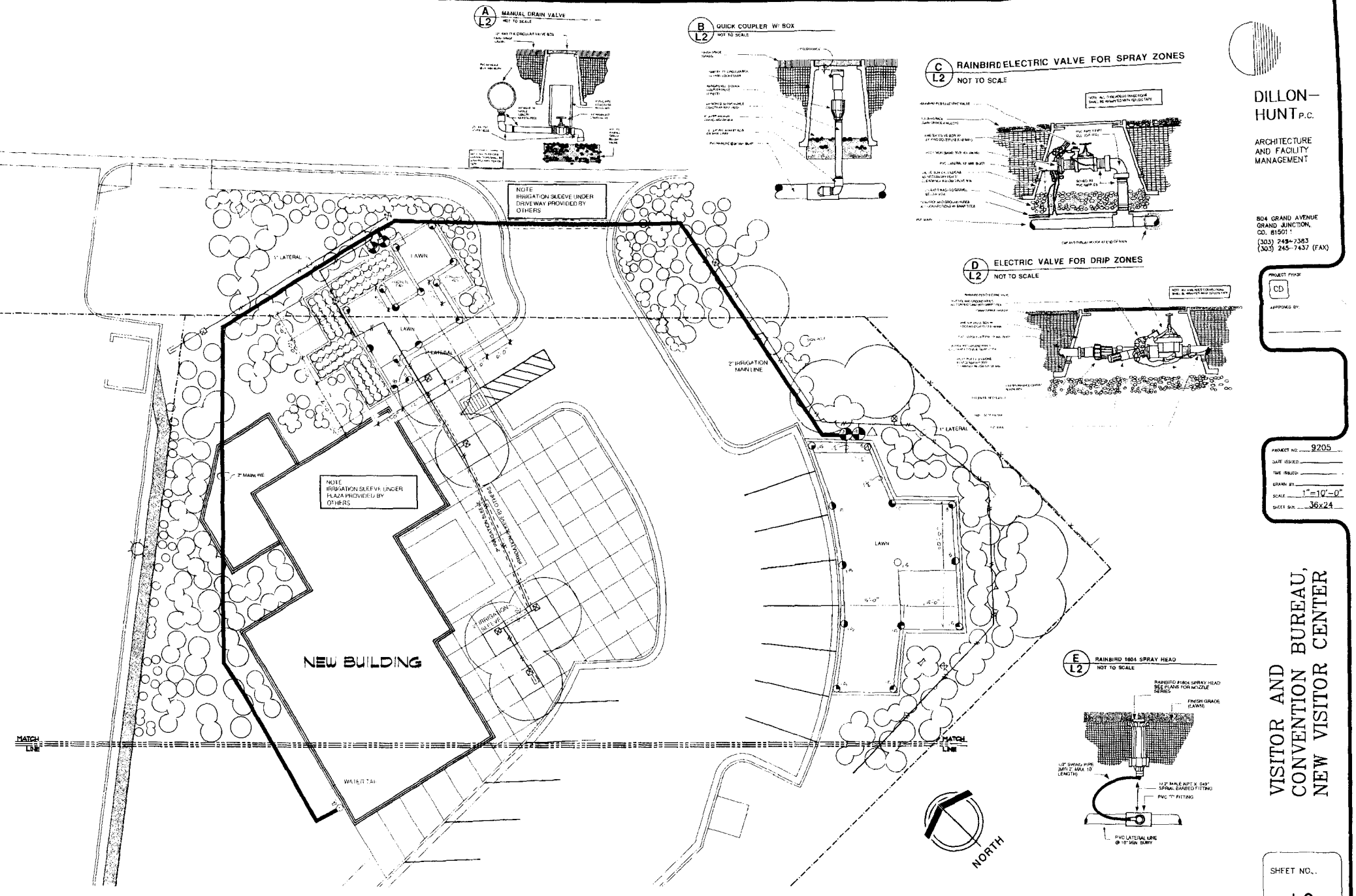
PROJECT PHASE: CD

APPROVED BY:

PROJECT NO. 9205
DATE ISSUED:
TIME ISSUED:
DRAWN BY:
SCALE: 1"=10'-0"
SHEET SIZE: 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

SHEET NO. L4 OF FOUR



DILLON–HUNT P.C.

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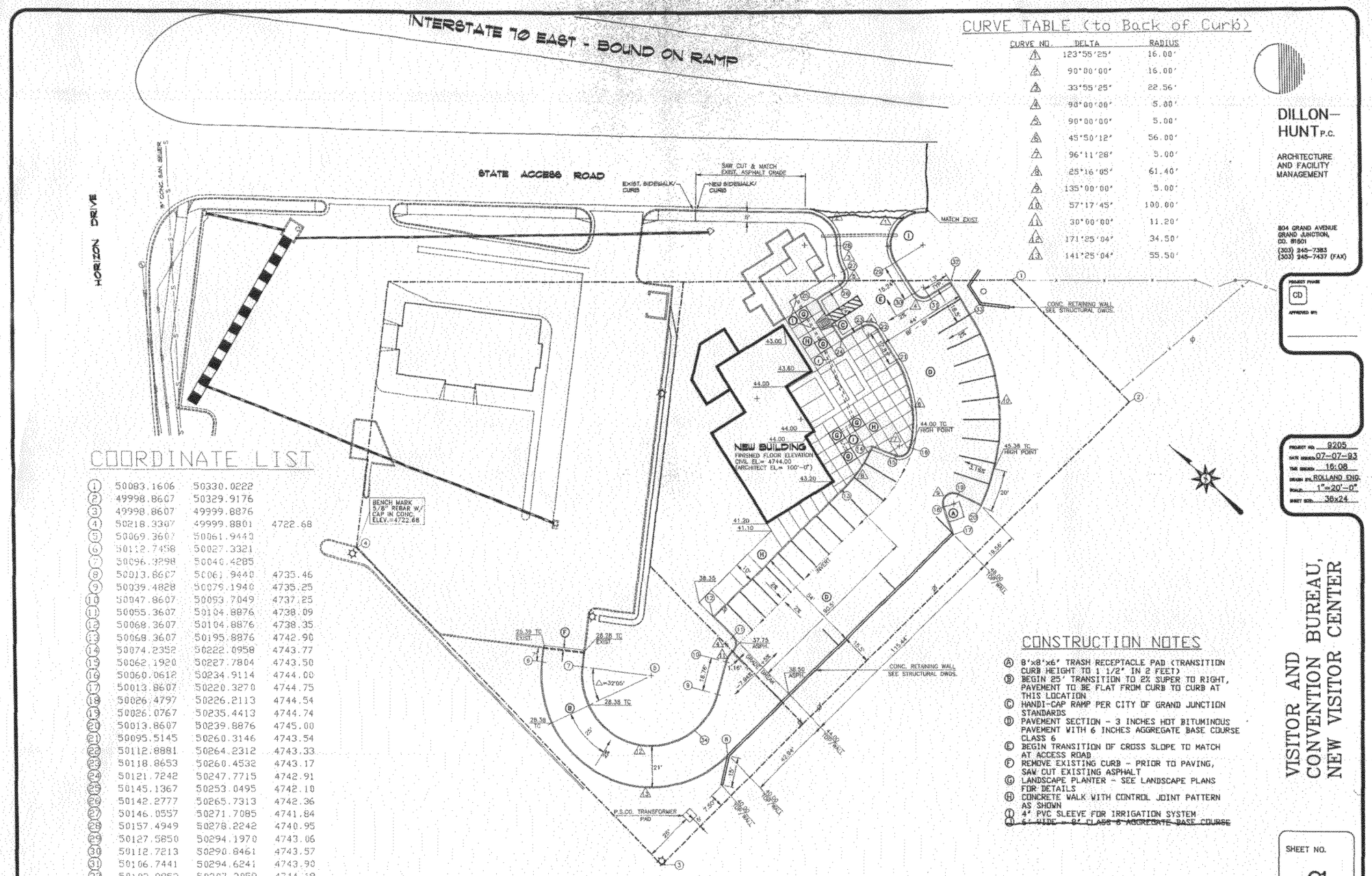
VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

IRRIGATION PLAN

SHEET NO. L2 OF FOUR



CURVE TABLE (to Back of Curb)

CURVE NO.	DELTA	RADIUS
1	123°55'25"	16.00'
2	90°00'00"	16.00'
3	33°55'25"	22.56'
4	90°00'00"	5.00'
5	90°00'00"	5.00'
6	45°50'12"	56.00'
7	96°11'28"	5.00'
8	25°16'05"	61.40'
9	135°00'00"	5.00'
10	57°17'45"	100.00'
11	30°00'00"	11.20'
12	171°25'04"	34.50'
13	141°25'04"	55.50'

COORDINATE LIST

1	50083.1606	50330.0222	
2	49998.8607	50329.9176	
3	49998.8607	49999.8876	
4	50218.3307	49999.8801	4722.68
5	50069.3607	50061.9440	
6	50112.7458	50027.3321	
7	50096.3298	50040.4285	
8	50013.8607	50061.9440	4735.46
9	50039.4828	50079.1940	4735.25
10	50047.8607	50093.7049	4737.25
11	50055.3607	50104.8876	4738.09
12	50068.3607	50104.8876	4738.35
13	50068.3607	50195.8876	4742.90
14	50074.2352	50222.0958	4743.77
15	50062.1920	50227.7804	4743.50
16	50060.0618	50234.9114	4744.00
17	50013.8607	50220.3270	4744.75
18	50026.4797	50226.2113	4744.54
19	50026.0767	50235.4413	4744.74
20	50013.8607	50239.8876	4745.00
21	50095.5145	50260.3146	4743.54
22	50112.8881	50264.2312	4743.33
23	50118.8653	50260.4532	4743.17
24	50121.7242	50247.7715	4742.91
25	50145.1367	50253.0495	4742.10
26	50142.2777	50265.7313	4742.36
27	50146.0557	50271.7085	4741.84
28	50157.4949	50278.2242	4740.95
29	50127.5850	50294.1970	4743.05
30	50118.7213	50290.8461	4743.57
31	50106.7441	50294.6241	4743.90
32	50103.8852	50307.3059	4744.18
33	50085.8381	50303.2374	4744.40
34	50034.8607	50061.9440	4735.12

CONSTRUCTION NOTES

- (A) 8'x8'x6' TRASH RECEPTACLE PAD (TRANSITION CURB HEIGHT TO 1 1/2" IN 2 FEET)
- (B) BEGIN 25' TRANSITION TO 2% SUPER TO RIGHT, PAVEMENT TO BE FLAT FROM CURB TO CURB AT THIS LOCATION
- (C) HANDI-CAP RAMP PER CITY OF GRAND JUNCTION STANDARDS
- (D) PAVEMENT SECTION - 3 INCHES HOT BITUMINOUS PAVEMENT WITH 6 INCHES AGGREGATE BASE COURSE CLASS 6
- (E) BEGIN TRANSITION OF CROSS SLOPE TO MATCH AT ACCESS ROAD
- (F) REMOVE EXISTING CURB - PRIOR TO PAVING, SAW CUT EXISTING ASPHALT
- (G) LANDSCAPE PLANTER - SEE LANDSCAPE PLANS FOR DETAILS
- (H) CONCRETE WALK WITH CONTROL JOINT PATTERN AS SHOWN
- (I) 4" PVC SLEEVE FOR IRRIGATION SYSTEM
- (J) ~~5' WIDE - 8" CLASS 6 AGGREGATE BASE COURSE~~

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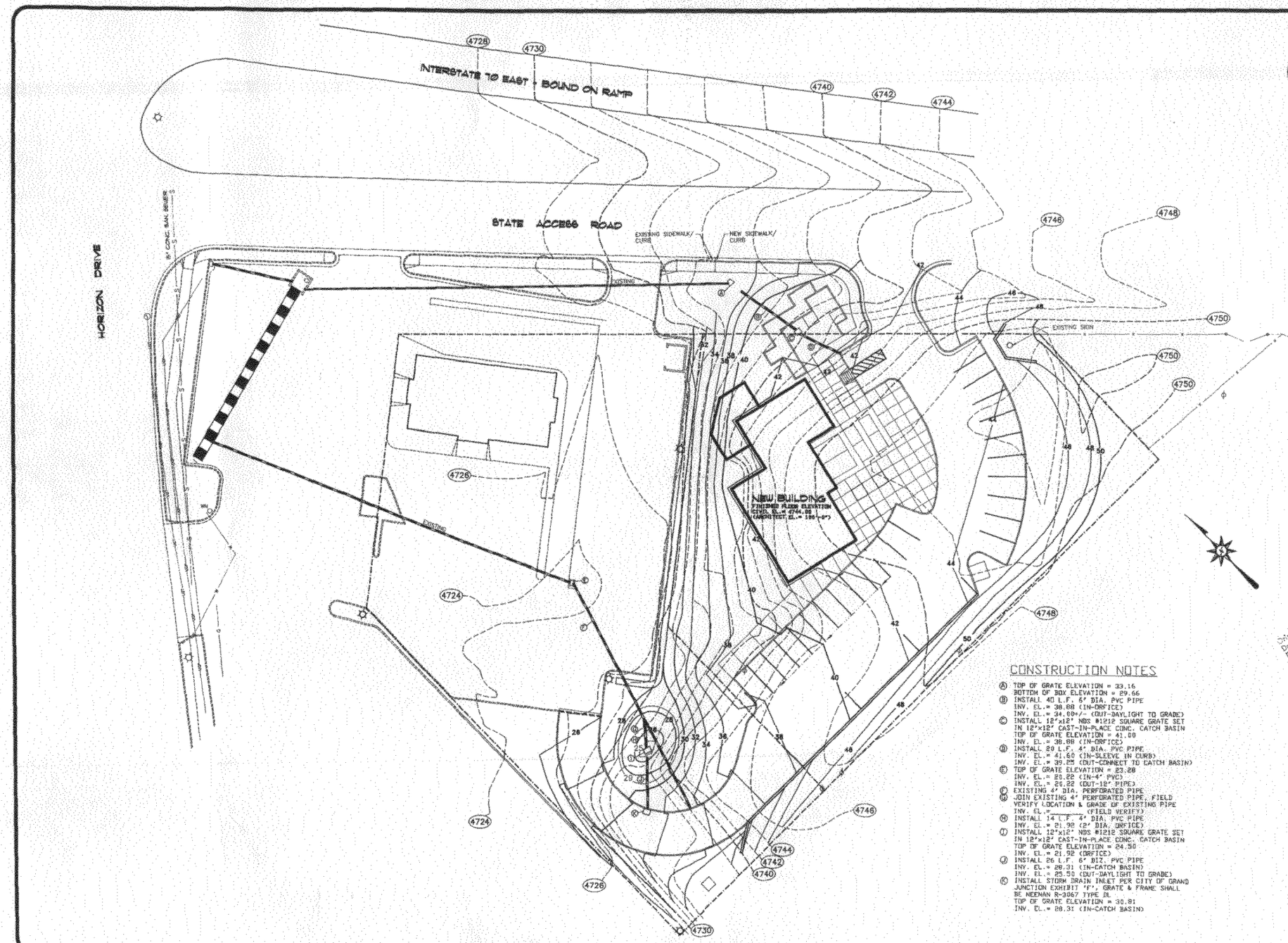
PROJECT PHASE: CD
APPROVED BY:

PROJECT NO. 9205
DATE ISSUED 07-07-83
TIME DRAWN 16:08
DRAWN BY ROLLAND ENG.
SCALE 1"=20'-0"
SHEET SIZE 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

SHEET NO. C1 OF 2



CONSTRUCTION NOTES

Ⓐ TOP OF GRATE ELEVATION = 33.16
BOTTOM OF BOX ELEVATION = 29.66
Ⓑ INSTALL 40 L.F. 6" DIA. PVC PIPE
INV. EL.= 38.88 (IN-ORFICE)
INV. EL.= 34.00+/- (OUT-DAYLIGHT TO GRADE)
Ⓒ INSTALL 12"x12" NDS #1212 SQUARE GRATE SET IN 12"x12" CAST-IN-PLACE CONC. CATCH BASIN
TOP OF GRATE ELEVATION = 41.00
INV. EL.= 38.88 (IN-ORFICE)
Ⓓ INSTALL 20 L.F. 4" DIA. PVC PIPE
INV. EL.= 41.60 (IN-SLEEVE IN CURB)
INV. EL.= 39.25 (OUT-CONNECT TO CATCH BASIN)
Ⓔ TOP OF GRATE ELEVATION = 23.28
INV. EL.= 20.22 (IN-4" PVC)
INV. EL.= 20.22 (OUT-12" PIPE)
Ⓕ EXISTING 4" DIA. PERFORATED PIPE
Ⓖ JOIN EXISTING 4" PERFORATED PIPE, FIELD VERIFY LOCATION & GRADE OF EXISTING PIPE
INV. EL.= (FIELD VERIFY)
Ⓗ INSTALL 14 L.F. 4" DIA. PVC PIPE
INV. EL.= 21.92 (2" DIA. ORFICE)
Ⓘ INSTALL 12"x12" NDS #1212 SQUARE GRATE SET IN 12"x12" CAST-IN-PLACE CONC. CATCH BASIN
TOP OF GRATE ELEVATION = 24.50
INV. EL.= 21.92 (ORFICE)
Ⓙ INSTALL 26 L.F. 6" DIA. PVC PIPE
INV. EL.= 28.31 (IN-CATCH BASIN)
INV. EL.= 25.50 (OUT-DAYLIGHT TO GRADE)
Ⓚ INSTALL STORM DRAIN INLET PER CITY OF GRAND JUNCTION EXHIBIT 'F', GRATE & FRAME SHALL BE NEENAH R-3067 TYPE DL
TOP OF GRATE ELEVATION = 30.81
INV. EL.= 28.31 (IN-CATCH BASIN)

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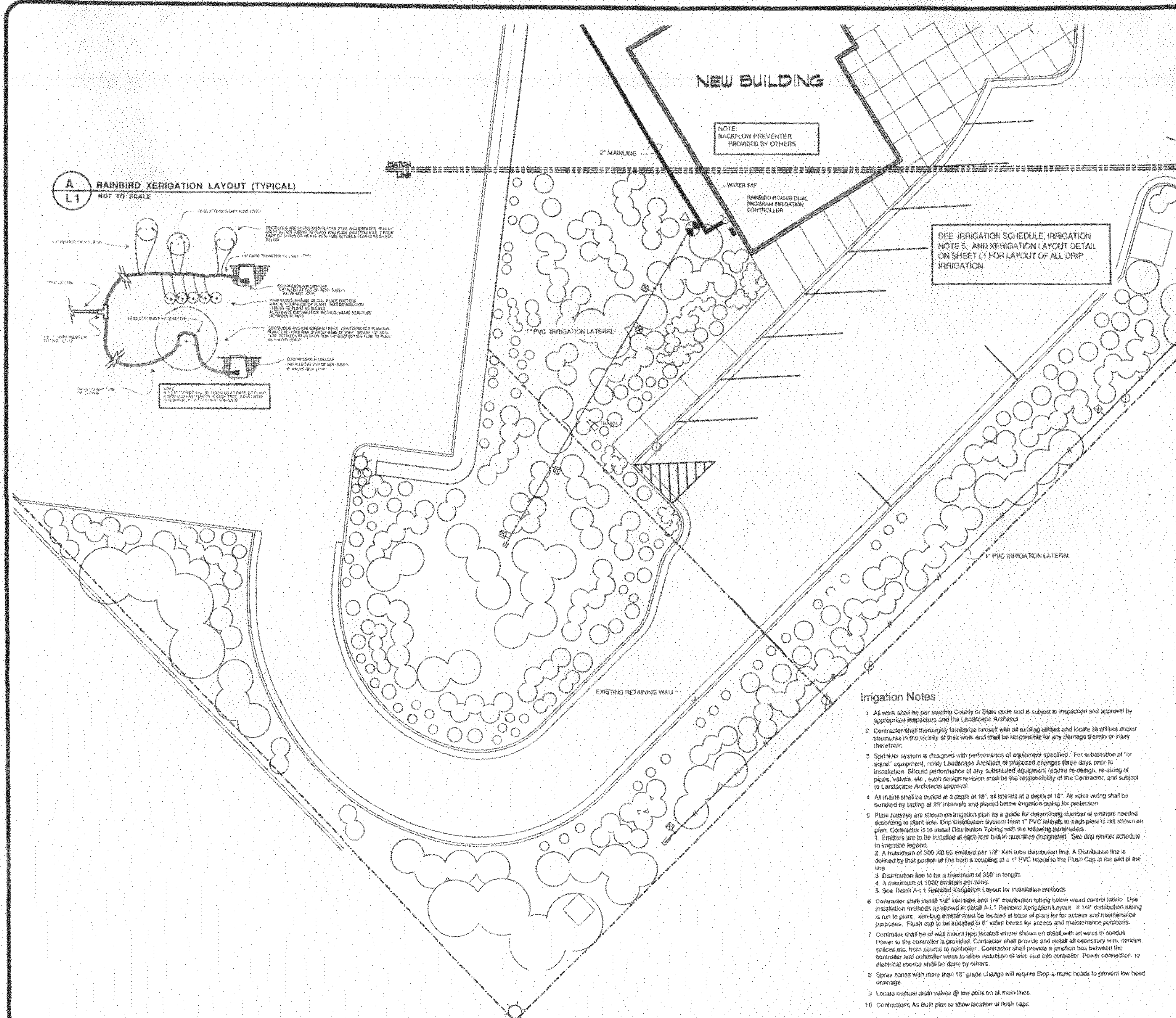
PROJECT PHASE: CD
APPROVED BY:

PROJECT NO. 9205
DATE ISSUED 07–07–93
TIME ISSUED 23:23
DRAWN BY ROLLAND ENG.
SCALE 1"=20'–0"
SHEET SIZE 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

Original Do NOT Remove From Office

SHEET NO. C2
OF 2



Irrigation Notes

1. All work shall be per existing County or State code and is subject to inspection and approval by appropriate inspectors and the Landscape Architect.
2. Contractor shall thoroughly familiarize himself with all existing utilities and locate all utilities and/or structures in the vicinity of their work and shall be responsible for any damage thereto or injury therefrom.
3. Sprinkler system is designed with performance of equipment specified. For substitution of "or equal" equipment, notify Landscape Architect of proposed changes three days prior to installation. Should performance of any substituted equipment require re-design, re-sizing of pipes, valves, etc., such design revision shall be the responsibility of the Contractor, and subject to Landscape Architects approval.
4. All mains shall be buried at a depth of 18", all laterals at a depth of 18". All valve wiring shall be bundled by taping at 25' intervals and placed below irrigation piping for protection.
5. Plant masses are shown on irrigation plan as a guide for determining number of emitters needed according to plant size. Drip Distribution System from 1" PVC laterals to each plant is not shown on plan. Contractor is to install Distribution Tubing with the following parameters.
   1. Emitters are to be installed at each root ball in quantities designated. See drip emitter schedule in irrigation legend.
   2. A maximum of 300 XB 05 emitters per 1/2" Xeri-tube distribution line. A Distribution line is defined by that portion of line from a coupling at a 1" PVC lateral to the Flush Cap at the end of the line.
   3. Distribution line to be a maximum of 300' in length.
   4. A maximum of 1000 emitters per zone.
   5. See Detail A-L1 Rainbird Xerigation Layout for installation methods
6. Contractor shall install 1/2" xeri-tube and 1/4" distribution tubing below weed control fabric. Use installation methods as shown in detail A-L1 Rainbird Xerigation Layout. If 1/4" distribution tubing is run to plant, xeri-bug emitter must be located at base of plant for for access and maintenance purposes. Flush cap to be installed in 8" valve boxes for access and maintenance purposes.
7. Controller shall be of wall mount type located where shown on detail with all wires in conduit. Power to the controller is provided. Contractor shall provide and install all necessary wire, conduit, splices, etc. from source to controller. Contractor shall provide a junction box between the controller and controller wires to allow reduction of wire size into controller. Power connection to electrical source shall be done by others.
8. Spray zones with more than 18" grade change will require Stop-a-matic heads to prevent low head drainage.
9. Locate manual drain valves @ low point on all main lines.
10. Contractor's As Built plan to show location of flush caps.

IRRIGATION SCHEDULE AND LEGEND

RAINBIRD SPRAY HEADS

1804 SERIES SPRAY HEAD 12 SERIES NOZZLE UNLESS NOTED AS 4OR 15 SERIES

SPRAY NOZZLES: FULL; THREE QUARTERS; QUARTER; HALF; VAN

DRIP EMITTERS

RAINBIRD 1/2" COMPRESSION FITTINGS (CF11, CF12, CF13)

PLANT DIAMETER

- 18" / 2': 2' AND LESS DIAMETER PLANTS — 1 EMITTER PER PLANT. RAINBIRD XB-10 EMITTER (1.0 GPH)
- 3' / 5': 3' to 5' DIAMETER PLANTS — 2 EMITTERS PER PLANT. RAINBIRD XB-10 EMITTER (1.0 GPH)
- 7' / 12': 7' DIAMETER AND LARGER PLANTS — 4 EMITTERS PER PLANT. RAINBIRD XB-10 EMITTER (1.0 GPH)

VALVES

- HOSE BIB
- RAINBIRD PEB ELECTRIC REMOTE CONTROL VALVE

PIPING

- ALL MAIN LINES TO BE PVC CLASS 200 IPS PLASTIC PIPE *
- DRIP ZONE LATERAL ALL LATERAL LINES TO BE CLASS 160 IPS PLASTIC PIPE *
- SPRAY ZONE LATERAL. ALL LATERAL LINES TO BE CLASS 160 IPS PLASTIC PIPE *
- SLEEVING - TO BE NO LESS THAN 1" LARGER THAN COMBINED TOTAL DIAMETER OF PIPES PASSING THROUGH *
- MANUAL DRAIN VALVE

* ALL LATERALS IN DRIP ZONES TO BE 1" PVC CLASS 160 PLASTIC PIPE

LOCATION	G.P.M.	PRECIP. RATE	TYPE	VALVE SIZE
ZONE 1	4.0	0.25 IN/HR	DRIP	1" RAINBIRD PEB VALVE
ZONE 2	11.0	1.74 IN/HR	POP-UP	1-1/2" RAINBIRD PEB VALVE
ZONE 3	22.0	1.55 IN/HR	POP-UP	1-1/2" RAINBIRD PEB VALVE
ZONE 4	5.0	0.25 IN/HR	DRIP	1" RAINBIRD PEB VALVE
ZONE 5	3.5	0.25 IN/HR	DRIP	1" RAINBIRD PEB VALVE

IRRIGATION PLAN

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PROJECT PHASE: CD

APPROVED BY:

PROJECT NO. 9205

DATE ISSUED:

DATE REVISED:

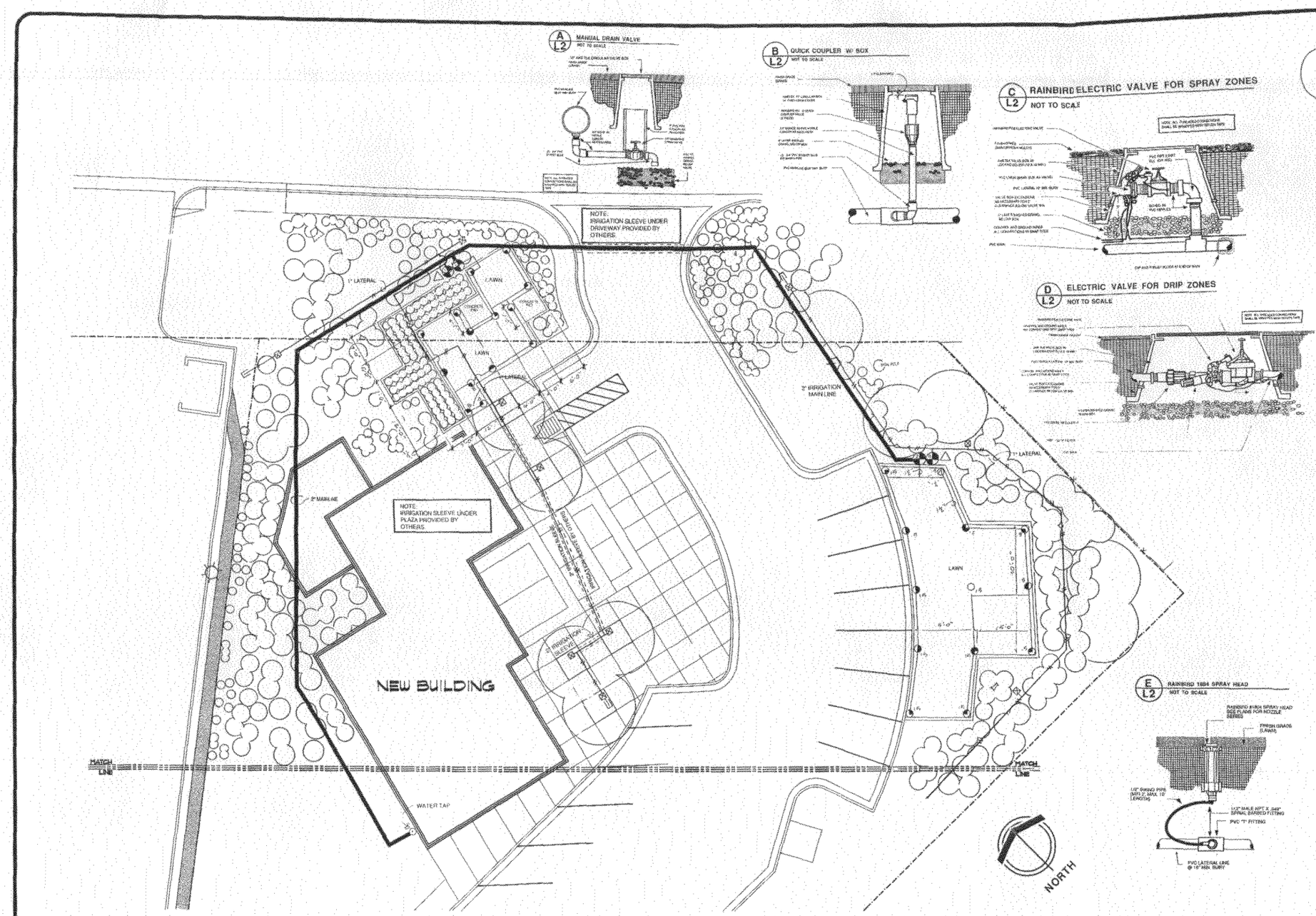
DRAWN BY:

SCALE: 1"=10'-0"

SHEET SIZE: 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

SHEET NO. L1 OF FOUR



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VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

IRRIGATION PLAN

SHEET NO.. L2
OF FOUR

PLANT LIST

QTY	KEY	COMMON NAME	SCIENTIFIC NAME	SIZE
Deciduous Trees				
4	NPP	Newport Plum	Prunus cerasifera 'Newport'	1-1/2"
4	RUO	Russian Olive	Elaeagnus angustifolia	1-1/2"
Evergreen Trees				
5	AUS	Austrian Pine	Pinus nigra	7-8'
9	PPN	Pinon Pine	Pinus edulis	6'
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1	SCB	All Gold Scotch Broom	Cytisus praecox 'All Gold'	5 gal
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21	SYC	Soapweed Yucca	Yucca glauca	5 gal
Perennials/Groundcovers				
23	ABS	American Bittersweet	Celastrus scandens	1 gal
8	ASR	[illegible]	[illegible]	1 gal
53	BLS	Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	1 gal
6	BFC	Blue Fescue	Festuca ovina 'glauca'	1 gal
8	BFL	Bellflower	Campanula carpatica	1 gal
44	DBF	Dwarf Blanket Flower	Gaillardia 'Goblin'	1 gal
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6	LFF	Lewis' Flax	Linum perenne 'Lewisii'	1 gal
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14	PFP	Prairie Fire Penstemon	Penstemon barbatus 'Prairie Fire'	1 gal
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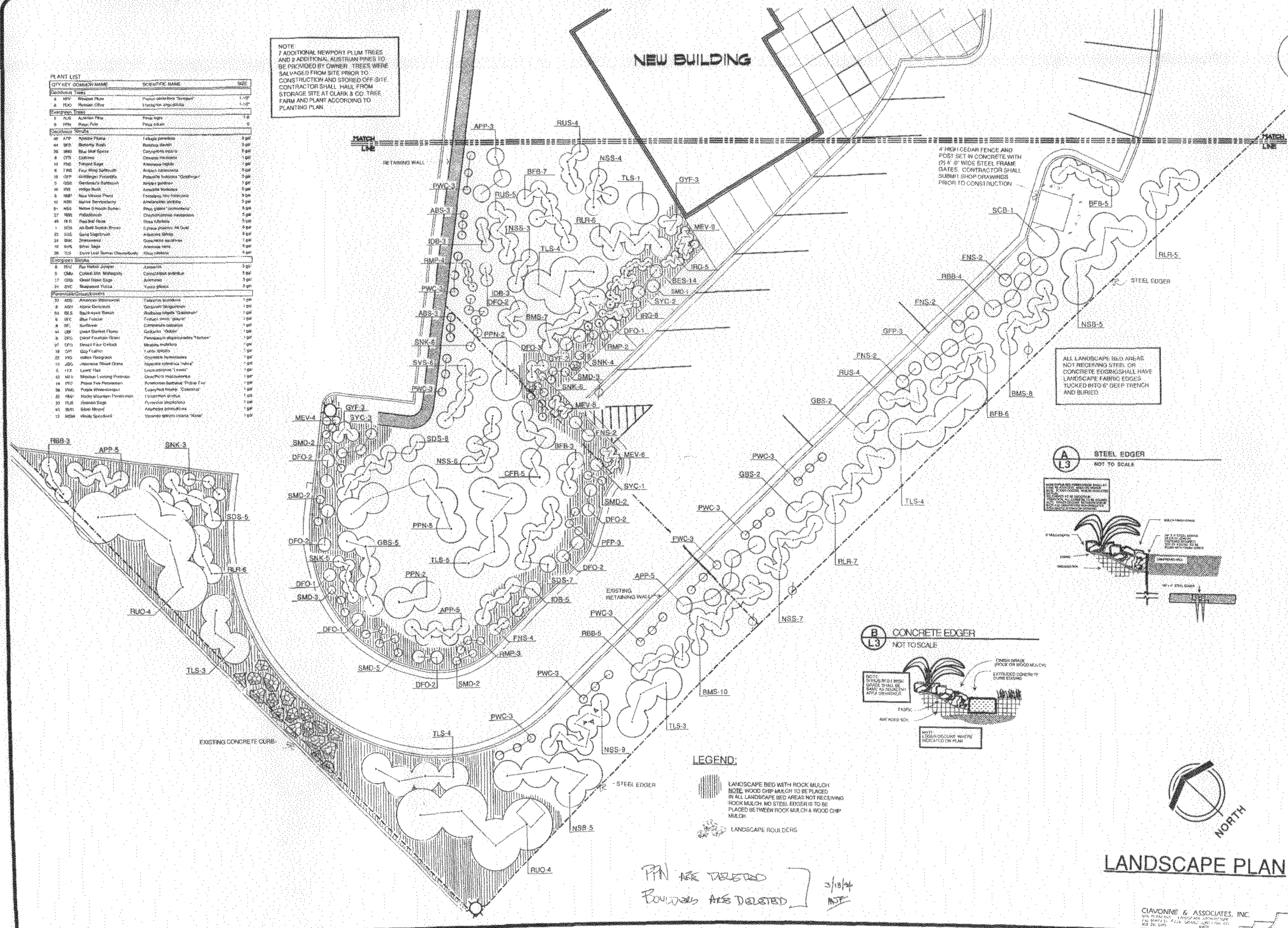
33	RUS	Russian Sage	Perovskia atriplicifolia	1 gal
43	SMD	Silver Mound	Artemisia schmidtiana	1 gal
13	WSW	Woolly Speedwell	Veronica spicata incana 'Nana'	1 gal

NOTE:
7 ADDITIONAL NEWPORT PLUM TREES AND 2 ADDITIONAL AUSTRIAN PINES TO BE PROVIDED BY OWNER. TREES WERE SALVAGED FROM SITE PRIOR TO CONSTRUCTION AND STORED OFF-SITE. CONTRACTOR SHALL HAUL FROM STORAGE SITE AT CLARK & CO. TREE FARM AND PLANT ACCORDING TO PLANTING PLAN.



LANDSCAPE PLAN

DILLON-HUNT P.C.
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(303) 245-7363
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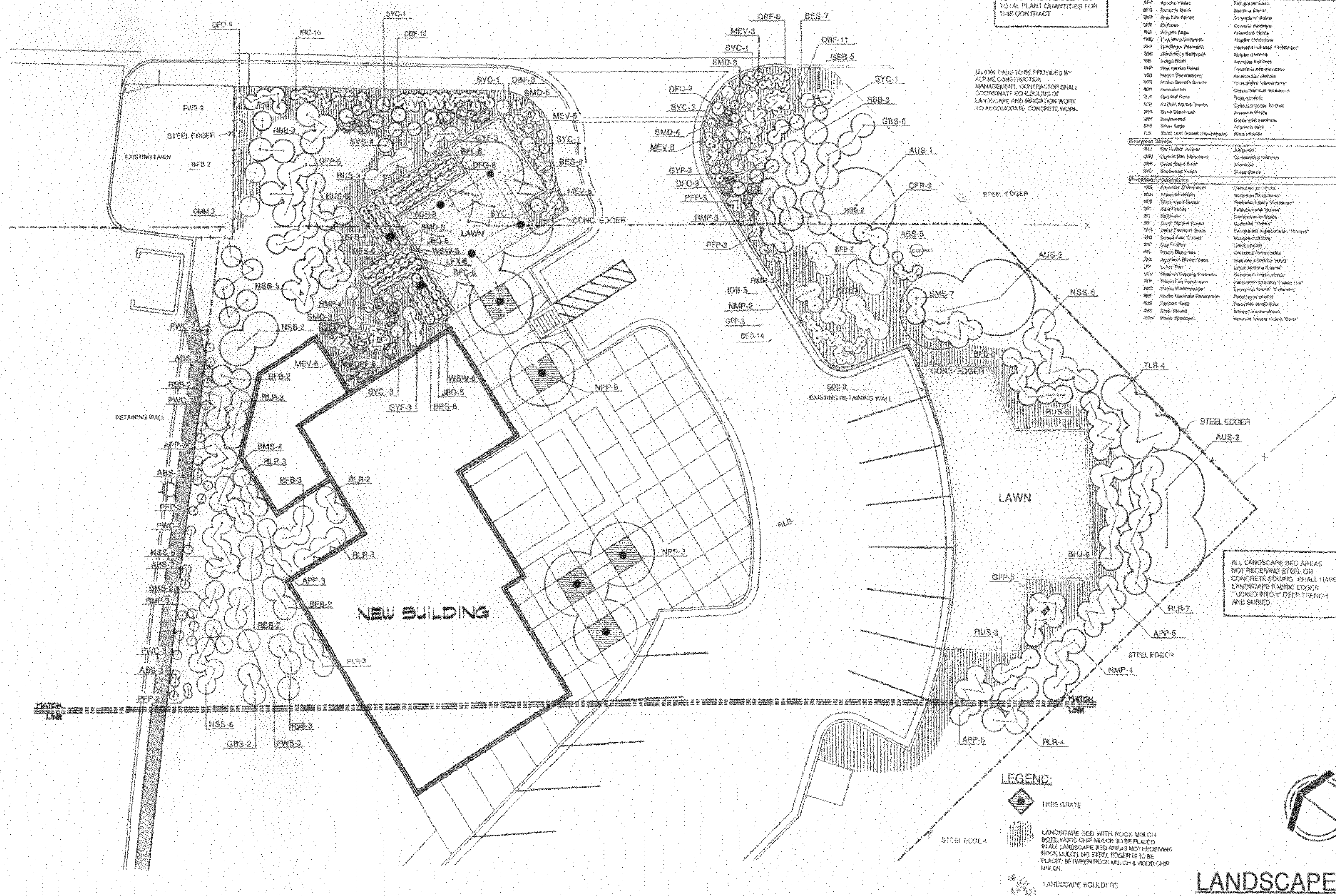
PROJECT PHASE: CD
APPROVED BY:

PROJECT NO. 9205
DATE ISSUED:
DRAWN BY:
SCALE: 1"=10'-0"
SHEET SIZE: 36x24

VISITOR AND CONVENTION BUREAU, NEW VISITOR CENTER

SHEET NO. L3 OF FOUR

CIAVONNE & ASSOCIATES, INC.



SEE PLANT LIST SHEET L3 OF FOUR OF THIS PACKAGE FOR TOTAL PLANT QUANTITIES FOR THIS CONTRACT

(2) 6'X6' PADS TO BE PROVIDED BY ALPINE CONSTRUCTION MANAGEMENT. CONTRACTOR SHALL COORDINATE SCHEDULING OF LANDSCAPE AND IRRIGATION WORK TO ACCOMMODATE CONCRETE WORK.

ALL LANDSCAPE BED AREAS NOT RECEIVING STEEL OR CONCRETE EDGING SHALL HAVE LANDSCAPE FABRIC EDGES TUCKED INTO 6" DEEP TRENCH AND BURIED.

PLANT LIST

KEY	COMMON NAME	SCIENTIFIC NAME	SIZE
Deciduous Trees			
NPP	Newport Plum	Prunus cerasifera 'Newport'	1-1/2"
RUO	Russian Olive	Elaeagnus angustifolia	1-1/2"
Evergreen Trees			
AUS	Austrian Pine	Pinus nigra	7-8'
PPN	Pinon Pine	Pinus edulis	6'
Deciduous Shrubs			
APP	Apache Plume	Fallugia paradoxa	5 gal
BFB	Butterfly Bush	Buddleia davidii	5 gal
BMS	Blue Mist Spirea	Caryopteris incana	5 gal
CFR	Cliffrose	Cowania mexicana	1 gal
FNS	Fringed Sage	Artemisia frigida	1 gal
FWS	Four Wing Saltbush	Atriplex canescens	5 gal
GFP	Goldfinger Potentilla	Potentilla fruticosa 'Goldfinger'	5 gal
GSB	Gardner's Saltbush	Atriplex gardneri	1 gal
IDB	Indigo Bush	Amorpha fruticosa	5 gal
NMP	New Mexico Privet	Forestiera neo-mexicana	5 gal
NSB	Native Serviceberry	Amelanchier alnifolia	5 gal
NSS	Native Smooth Sumac	Rhus glabra 'cismontana'	5 gal
RBB	Rabbitbrush	Chrysothamnus nauseosus	5 gal
RLR	Red leaf Rose	Rosa rubrifolia	5 gal
SCB	All Gold Scotch Broom	Cytisus praecox 'All Gold'	5 gal
SDS	Sand Sagebrush	Artemisia filifolia	5 gal
SNK	Snakeweed	Gutierrezia sarothrae	1 gal
SVS	Silver Sage	Artemisia cana	5 gal
TLS	Three Leaf Sumac (Squawbush)	Rhus trilobata	5 gal
Evergreen Shrubs			
BHJ	Bar Harbor Juniper	Juniperus	5 gal
CMM	Curlleaf Mtn. Mahogany	Cercocarpus ledifolius	5 gal
GBS	Great Basin Sage	Artemisia	5 gal
SYC	Soapweed Yucca	Yucca glauca	5 gal
Perennials/Groundcovers			
ABS	American Bittersweet	Celastrus scandens	1 gal
AGH	Alpine Geranium	Geranium Sanguineum	1 gal
BES	Black-eyed Susan	Rudbeckia fulgida 'Goldsturm'	1 gal
BFC	Blue Fescue	Festuca ovina 'glauca'	1 gal
BFL	Bellflower	Campanula carpatica	1 gal
DBF	Dwarf Blanket Flower	Gaillardia 'Goblin'	1 gal
DFG	Dwarf Fountain Grass	Pennisetum alopecuroides 'Hameln'	1 gal
DFO	Desert Four O'Clock	Mirabilis multiflora	1 gal
GYF	Gay Feather	Liatris spicata	1 gal
IRG	Indian Ricegrass	Oryzopsis hymenoides	1 gal
JBG	Japanese Blood Grass	Imperata cylindrica 'rubra'	1 gal
LFX	Lewis Flax	Linum perenne 'Lewisii'	1 gal
MEV	Mexican Evening Primrose	Oenothera berlandieri	1 gal
PFP	Prairie Fire Penstemon	Penstemon barbatus 'Prairie Fire'	1 gal
PWC	Purple Wintercreeper	Euonymus fortunei 'Coloratus'	1 gal
RMP	Rocky Mountain Penstemon	Penstemon strictus	1 gal
RUS	Russian Sage	Perovskia atriplicifolia	1 gal
SMD	Silver Mound	Artemisia schmidtiana	1 gal
WSW	Woolly Speedwell	Veronica spicata incana 'Nana'	1 gal

LEGEND:

TREE GRATE

LANDSCAPE BED WITH ROCK MULCH.
NOTE: WOOD CHIP MULCH TO BE PLACED IN ALL LANDSCAPE BED AREAS NOT RECEIVING ROCK MULCH. NO STEEL EDGER IS TO BE PLACED BETWEEN ROCK MULCH & WOOD CHIP MULCH.

LANDSCAPE BOULDERS

DILLON-HUNT P.C.
ARCHITECTURE AND FACILITY MANAGEMENT
804 GRAND AVENUE
GRAND JUNCTION, CO. 81501
(303) 245-7383
(303) 245-7437 (FAX)

PROJECT PHASE: CD
APPROVED BY:

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LANDSCAPE PLAN

CIAVONNE & ASSOCIATES, INC.

SHEET NO. L4 OF FOUR