Table of Contents

File SPR-1996-144 Name: Hanson Equipment Expansion – 2523 Highway 6 and 50 – Site Plan Review

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**
		***Application form**
		Review Sheets
		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
X	X	***Review Comments**
X	X	***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	Certificate of Occupancy – 12/29/97	X	X	Site Plan – to be scanned
X		Correspondence	X	X	Landscape Plan – to be scanned
X	X	Drainage Plan – 6/5/96	X	X	Drainage Plan – to be scanned
X	X	Agreement to Vacate Irrigation Easement – Bk 2193 / Pg 445	X		Building Elevations
X		Trade Name Affidavit – Bk 1135 / Pg 916			
X	X	Planning Clearance – issued 8/20/ 96 - **			
X	X	Quit Claim Deed – Bk 2259 / Pg 968			
X		Warranty Deed – Rec. No. unclear – not conveyed to City			
X	X	Location Map			

SUBMITTAL CHECKLIST

SITE PLAN REVIEW

Location: 2525 Hwy 6&50 Project Name: HANSON EQUIPMENT EXPANSION

Date Received 6-17-96

Receipt # 4175

File # SPR-96-144

ITEMS		DISTRIBUTION																														
DESCRIPTION	SSID REFERENCE	● City Community Development	● City Dev. Eng.	● City Utility Eng.	● City Property Agent	O City Parks/Recreation	● City Fire Department	● City Attorney	O City Downtown Dev. Auth.	O County Planning	● County Bldg. Dept.	● Irrigation District	● Drainage District – GJDD	● Water District – UTE	O Sewer District	O U.S. West	O Public Service	O GVRP	● CDOT	● Corps of Engineers	O Walker Field	O Persigo WWT	O Mesa County Health	O State Environ. Health	O City Sanitation	O School Dist #51	● City Police						TOTAL REQ'D. 13
● Application Fee $195	VII-1	1																														
● Submittal Checklist *	VII-3	1																														
● 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	1	1	1	1	1	1					
● Planning Clearance*	VII-3	1																														
● 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	1	1	1	1	1	1					
● Evidence of Title	VII-2	1			1			1																								
O Deeds	VII-1	1			1			1																								
● Easements - copy of easement	VII-2	1	1	1	1			1																								
O Avigation Easement	VII-1	1			1			1																								
O ROW	VII-2	1	1	1	1			1																								
O Improvements Agreement/Guarantee*	VII-2	1	1	1				1																								
O CDOT Access Permit	VII-3	1	1																													
O Industrial Pretreatment Sign-off	VII-4	1		1																												
● 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	1	1	1	1	1	1					
● Elevation Drawing	IX-13	1	1																													
● Site Plan	IX-29	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
O 11"x17" Reduction of Site Plan	IX-29					1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
● Grading and Drainage Plan	IX-16	1	2										1							1												
O Storm Drainage Plan and Profile	IX-30	1	2										1			1	1	1														
O Water and Sewer Plan and Profile	IX-34	1	2	1			1							1	1	1	1	1														
O Roadway Plan and Profile	IX-28	1	2										1																			
O Road Cross-Sections	IX-27	1	2																													
O Detail Sheet	IX-12	1	2																													
● Landscape Plan	IX-20	2	1	1																												
O Geotechnical Report	X-8	1	1								1																					
● Final Drainage Report	X-5,6	1	2										1																			
O Stormwater Management Plan	X-14	1	2										1							1												
O Phase I and II Environmental Rerpot	X-10,11	1	1																													
O Traffic Impact Study	X-15	1	2																1													

NOTES: * An asterisk in the item description column indicates that a form is supplied by the City.

PRE-APPLICATION CONFERENCE

Date: 6/14/06
Conference Attendance: C. McCallum; M. Drollinger
Proposal: Hanson Equipment - Bldg Expansion
Location: 2523 Hwy 6&50

Tax Parcel Number: 2945-103-00-079
Review Fee: $105
(Fee is due at the time of submittal. Make check payable to the City of Grand Junction.)

Additional ROW required? As per devel. eng.
Adjacent road improvements required? "
Area identified as a need in the Master Plan of Parks and Recreation? No
Parks and Open Space fees required? No Estimated Amount:
Recording fees required? No Estimated Amount:
Half street improvement fees/TCP required? TCP or as per Eng. Estimated Amount:
Revocable Permit required? No
State Highway Access Permit required? YES
On-site detention/retention or Drainage fee required? Yes (on-site)

Applicable Plans, Policies and Guidelines Devel. Code

Located in identified floodplain? FIRM panel #
Located in other geohazard area? No

Located in established Airport Zone? Clear Zone, Critical Zone, Area of Influence? No
Avigation Easement required? No

While all factors in a development proposal require careful thought, preparation and design, the following "checked" items are brought to the petitioner's attention as needing special attention or consideration. Other items of special concern may be identified during the review process.

O Access/Parking	O Screening/Buffering	O Land Use Compatibility
O Drainage	O Landscaping	O Traffic Generation
O Floodplain/Wetlands Mitigation	O Availability of Utilities	O Geologic Hazards/Soils

O Other
Related Files: SPR-05-230

It is recommended that the applicant inform the neighboring property owners and tenants of the proposal prior to the public hearing and preferably prior to submittal to the City.

PRE-APPLICATION CONFERENCE

WE RECOGNIZE that we, ourselves, or our representative(s) must be present at all hearings relative to this proposal and it is our responsibility to know when and where those hearings are.

In the event that the petitioner is not represented, the proposed item will be dropped from the agenda, and an additional fee shall be charged to cover rescheduling expenses. Such fee must be paid before the proposed item can again be placed on the agenda. Any changes to the approved plan will require a re-review and approval by the Community Development Department prior to those changes being accepted.

WE UNDERSTAND that incomplete submittals will not be accepted and submittals with insufficient information, identified in the review process, which has not been addressed by the applicant, may be withdrawn from the agenda.

WE FURTHER UNDERSTAND that failure to meet any deadlines as identified by the Community Development Department for the review process may result in the project not being scheduled for hearing or being pulled from the agenda.

x Chris Mall
Signature(s) of Petitioner(s)

x
Signature(s) of Representative(s)

GENERAL PARTNERSHIP
HANSON EQUIPMENT

44.38% - R. K. HANSON
44.38% - NANCY S. HANSON
5.62% - RICHARD K. LAIBLE
5.62% - PATRICIA A. LAIBLE

GENERAL PROJECT REPORT

PROJECT LOCATION: 2523 HWY 6 & 50
GRAND JUNCTION, CO 81505

PROJECT NAME: HANSON EQUIPMENT EXPANSION

DATE OF REPORT: JUNE 17, 1996

HANSON EQUIPMENT IS LOCATED AT 2523 HWY 6 & 50. THE LOCATION PRESENTLY OCCUPIES 7.71 ACRES. THE PROPOSED USE OF THE BUILDING EXPANSION WILL CONTINUE TO BE A SERVICE FACILITY. THE SMALL BUILDING SHOWN AT SOUTH-WEST CORNER, WILL BE USED FOR STORAGE OF USED PARTS AND STOCK INVENTORY. FENCING AROUND STORAGE AREA WILL BE SCREENED.

THE GENERAL PUBLIC WILL BENEFIT FROM EXPANDED SERVICES, AS WELL AS ADDITIONAL PREVENTATIVE CARE AND MAINTENANCE SERVICES, FOR THE HEAVY TRUCKING INDUSTRY BY REDUCING MAJOR REPAIRS THAT HAVE BEEN BROUGHT ABOUT THROUGH A LACK OF REGULAR SERVICE.

THE PROJECT IS LOCATED IN AN AREA WHICH IS PRESENTLY IN COMPLIANCE AND COMPATIBLE WITH SURROUNDING USES. LAND ADJOINING TO THE EAST IS PRESENTLY UTILIZED FOR THE SALE OF MOBILE HOMES. TO THE WEST IS VACANT LAND, WHICH IS AGRICULTURAL. THE PROPERTY IS BOARDED ON THE NORTH BY HIGHWAY 6 & 50.

SITE ACCESS AND TRAFFIC PATTERNS WILL REMAIN THE SAME.

ALL UTILITIES ARE PRESENTLY ON SITE, WITH THE NEW 8" FIRE LINE ON THE NORTH PROPERTY LINE INSTALLED BY UTE WATER AND THE CITY OF GRAND JUNCTION. FIRE HYDRANT LOCATIONS ARE INDICATED ON THE SITE PLAN.

THE EFFECTS ON PUBLIC FACILITIES WILL REMAIN UNCHANGED AND THERE WILL BE LITTLE, IF ANY, IMPACT ON SITE GEOLOGY.

HOURS OF OPERATION ARE AS FOLLOWS:
8:00 AM - 5:30 PM SALES
8:00 AM - 7:00 PM PARTS
8:00 AM -10:00 PM SERVICE
8:00 AM - 4:30 PM SATURDAY

NO ADDITIONAL SIGNS ARE PLANNED AT THE PRESENT TIME. THE CONSTRUCTION SCHEDULE WILL BE 90 DAYS FROM START DATE TO COMPLETION OF PROJECT.

Chris McCallum

CHRIS MCCALLUM
TPI
552 25 ROAD
GRAND JUNCTION, CO 81505
243-4642

DRAINAGE PLAN

June 5, 1996

HANSON EQUIPMENT
2523 U.S. Highway 6 & 50
Grand Junction, CO 81505

Prepared For:
Hanson Equipment
2523 U.S. Highway 6 & 50
Grand Junction, CO 81505

Prepared By:
HydroTerra Environmental Consulting
1179 Santa Clara Ave.
Grand Junction, CO 81503
970-242-4454

SPR-1996-144

January 27, 1998

To: Mike Pelletier
Grand Junction Planning and Development Department
250 North 5th Street
Grand Junction, CO

From: David Smuin
HydroTerra, Inc.
4221 Purdy Mesa Road
Whitewater, CO 81527

RE: HANSON EQUIPMENT, 2523 U.S. Highway 6 & 50, Grand Junction, CO 81505

The Hanson Equipment property is located on a 7.7 acre parcel of land within the City of Grand Junction at 2523 U.S. Highway 6 & 50 (the SW 1/4 of the SW 1/4 of Section 10, Township 1 North, Range 1 West, Mesa County, Colorado).

Existing development on the property prior to recent construction included an office/sales/shop building and an asphalt display lot. The undeveloped portion of the property consisted of graveled parking areas and bare ground. The planned development included an extension of the shop building, a parts storage building, and additional paved parking areas.

Plans prepared for site plan review in 1996 included a site plan, drainage plan, and landscape plan. Subsequent to a City inspection in January, 1998, planning staff requested that the plans be revised to reflect the actual site layout and buildings constructed during the development as there appeared to be a significant difference between the planned development and the actual development. The plans have been revised and are included herein.

Drainage Considerations

The City Engineer, Kerrie Ashbeck, also requested that drainage be addressed based on the changes to the site. The original plan proposed a conversion from gravel to hard surfacing of 31,400 square feet of the lot in the form of roof area, asphalt and concrete. The actual construction resulted in approximately 12,000 square feet of hard surfacing added to the site over and above what was shown on the proposed plans (total 43,400 sq.ft.). Prior to development, the

surface was gravel which had a 100 year event runoff coefficient of around 0.87. The post-development runoff coefficient for the hard surfacing is 0.95. The increase in runoff from the 12,000 sq.ft. of additional hard surfacing should be approximately 8%. Due to the location and configuration of the additional surface area, all of the additional runoff will be generated in sub-basin B as shown on the Proposed Drainage plan. This sub-basin was approved for 100% discharge overland to the drainage ditch just south of the property.

Based on the calculations presented in the original drainage report, the development as originally proposed would result in an increased peak discharge rate of 0.39 cfs (11%) for the 2 year event and 1.0 cfs (8%) for the 100 year event. Based on the minor effects of proposed development on increased drainage flows, Hanson Equipment was granted an exemption from peak discharge control and was allowed to discharge developed runoff directly to the drainage canal along the properties southern boundary. This conclusion was supported by the following:

I) In light of the small size of the development in comparison to the overall drainage basin of consideration, development will have a minimal impact on the outflow to the Colorado River.

ii) Additionally, the drainage outflow of the property is near the end of the overall drainage basin (approximately 600' to the Colorado River) and peak discharge control may have a detrimental impact on the major drainage course peak discharge and capacity.

iii) Finally, the drainage channel appears to be of more than adequate capacity to carry developed runoff safely to the Colorado River.

These criteria are still valid for the development as built and it is requested that the exemption be extended to include the project as built.

Please call if you have questions, 242-4454.

Sincerely,

David Smuin

Table of Contents

I. General Location and Description

The Hanson Equipment property is located on a 7.7 acre parcel of land within the City of Grand Junction city limits at 2523 U.S. Highway 6 & 50 (the SW 1/4 of the SW 1/4 of Section 10, Township 1 North, Range 1 West, Mesa County, Colorado). The property is bordered by a vacant lot to the west, a drainage canal to the south, a vacant lot to the east, and U.S. Highway 6 & 50 to the north. The property is not within the 100 year floodplain of the Colorado River or any other drainages.

Existing development on the property includes an office/sales/shop building and an asphalt display lot. The undeveloped portion of the property consists of graveled parking areas and bare ground. The planned development includes an extension of the shop building and additional paved parking area. Soil at the site is uncultivated SCS type B soil and is classified by the Soil Conservation Service as Green River very fine sandy loam.

II. Existing Drainage Conditions

The site topography and observations from the site inspection indicate that, at present, precipitation from most of the property drains southward to the drainage canal along the southern boundary of the property either via direct flow or through two drainage pipes. The site topography is relatively flat, with surface gradients that vary from approximately 0.003 to 0.007. The property was divided into 5 subbasins because flow routing for each basin is separate (see drainage plan map). The surface runoff from subbasin B flows directly to the canal, while the runoff from subbasins A and C are conveyed to the canal by two separate 12-in. diameter stormwater drains. The gradient on the pipes is greater than or equal to 0.5% and the pipes appear to be open and functioning. The pipes discharge into the drainage ditch which continues west and drains into the Colorado River approximately 200 yards downstream. Stormwater runoff from two small subbasins D and E (0.17 acres and 0.13 acres respectively) in the northeastern portion of the property ponds within the respective basins with no off-site drainage. No existing drainage concerns are apparent.

III. Drainage Design Criteria

Drainage design criteria are taken from the *Stormwater Management Manual* (Public Works Department, City of Grand Junction, CO; June, 1994). Reference is also made to the Appendices in the *Stormwater Management Manual* for development of several constitutive design parameters. The Rational Method is used to develop Peak runoff estimates (cfs) for both existing and post-development conditions for the 7.4-acre potion of the property that currently drains off site (subbasins A, B, and C). Peak runoff is developed for the 2-year and 100-year precipitation events for the Mesa County urbanized area. The two small basins, D and E (0.17 acres and 0.13 acres) in the northeastern portion of the property on which water ponds and does not drain off site, have not been considered in these calculations because these areas will be unaffected by the proposed development.

Peak runoff flows for four site scenarios are calculated using the *Rational Method*. The four scenarios include peak runoff flow for precipitation event frequencies of 2 years and 100 years for existing conditions and for post-development conditions. The time of concentration, T_c, worksheet for each of the scenarios investigated is included for reference as Appendix A. The *Rational Method* worksheet used to calculate peak flow runoff is included for reference as Appendix B.

IV. Drainage Design (developed conditions)

The proposed additions to the shop building and pavement will increase the developed area of the property by approximately 0.74 acres (from an existing 1.5 acres to a proposed 2.24 acres). As shown in Appendix B, the proposed development will result in an 11% increase in the peak runoff rate for the 2 yr. precipitation event (from historic rate of 3.71 cfs to a developed rate of 4.10 cfs) and 8% for the 100 yr. precipitation event (from historic rate of 13.1 cfs to developed rate of 14.1 cfs). Approximately 46% of the runoff will drain from subbasin A and 48% will drain from subbasin B. The remaining 6% of runoff will drain from subbasin C. Subbasins D and E will remain unaffected by development and will not contribute to runoff.

V. Results and Conclusions

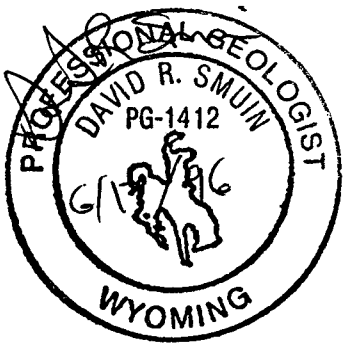
Development will result in an increased peak discharge rate of 0.39 cfs (11%) for the 2 yr event and 1.0 cfs (8%) for the 100 yr. event. Based on the minor increase in developed drainage flows, an exemption from peak discharge control is requested for this development. The exemption would allow Hanson Equipment to discharge developed runoff directly to the drainage canal along the properties southern boundary. This request is further supported as follows:

1) In light of the small size of the development in comparison to the overall drainage basin of consideration, development will have minimal impact on the outflow to the Colorado River.
2) Additionally, the drainage outflow for the property is near the end of the overall drainage basin (approximately 600' from the Colorado River) and peak discharge control may negatively impact the drainage basin by delaying discharge that would have already reached the river before the rest of the basin outflow has peaked.
3) The existing drainage conveyances for subbasins A, B, and C are adequate to carry the developed runoff without modification.
4) Finally, the drainage channel appears to be more than adequate to carry developed runoff safely to the Colorado River.

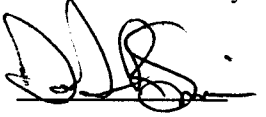
VI. Certification

I, David R. Smuin, hereby certify this report was completed by myself or under my direct supervision and has been prepared in accordance with good hydrology practices.

Seal

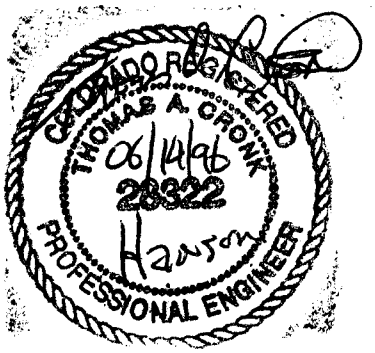


David R. Smuin- Hydrologist



Date

6/13/96



APPENDIX A

Time of Concentration, T_c, Worksheet

Time of Concentration, T_c, Worksheet

Project: Hanson Equipment
Site Condition: Existing conditions
Prepared by: David R. Smuin
Date: June 5, 1996

(The table below is an adaption of a worksheet provided in the SCS TR-55)
This table may be used in subbasin T_c calculations, or for travel time of subbasin runoff through a lower subbasin reach (T_t).
Use only channel flow for T_c calculations

STORM FREQUENCY		2 YEAR	100 YEAR
REACH	AREA IDENTIFIER	None	None
	SEGMENT IDENTIFICATION		
	T_c OR T_t THROUGH BASIN REACH		
OVERLAND FLOW	SURFACE DESCRIPTION (TABLE E-1)	Bare packed soil	Bare packed soil
	"N" VALUE (TABLE E-1)	0.10	0.10
	FLOW LENGTH, L (TOTAL < 300 FT.) (ft.)	150	150
	LAND SLOPE, S (ft./ft.)	0.005	0.005
	To (min.) (TABLE E-2, OR FIGURE E-1)	23	14
SHALLOW CONCENTRATED FLOW	SURFACE DESCRIPTION (FIGURE E-3)	Nearly bare and untilled	Nearly bare and untilled
	FLOW LENGTH, L (ft.)	150	150
	FLOW SLOPE, S (ft./ft.)	0.005	0.005
	FLOW VELOCITY, V (FIGURE E-3) (fps)	0.7	0.7
	TRAVEL TIME T_t = L/(60V) (min.)	3.6	3.6
PIPE FLOW	PIPE DIAMETER, d (ft)	1.0	1.0
	CHANNEL SLOPE, S (ft./ft.)	0.005	0.005
	MANNINGS COEFFICIENT, n (APPENDIX F)	0.024	0.024
	$V = 0.59 d^{2/3} S^{1/2}/n$ (fps) (APPENDIX H)	1.74	1.74
	ASSUMED VELOCITY (fps)	1.7	1.7
	FLOW LENGTH, L (ft.)	340	340
	TRAVEL TIME T_{pf} = L/(60V) (min.)	3.3	3.3
T_c	$T_c = T_o + T_t + T_{pf}$ (min.)	30	21

NOTE - Table and all referenced tables, figures, and appendices from Stormwater Management Manual, Public Works Department, City of Grand Junction, June, 1994

Time of concentration was calculated for the longest flow path in subbasin A, starting in the southwest corner and flowing northeast to the inlet of the 12 inch CMP, thence through the pipe to the drainage channel along the southern property boundary. The flow lengths used were 150 ft overland and 150 ft shallow concentrated flow.

Time of Concentration, T_c, Worksheet

Project: Hanson Equipment
Site Condition: Post-development
Prepared by: David R. Smuin
Date: June 5, 1996

(The table below is an adaption of a worksheet provided in the SCS TR-55)
This table may be used in subbasin T_c calculations, or for travel time of subbasin runoff through a lower subbasin reach (T_t).
Use only channel flow for T_t calculations

STORM FREQUENCY		2 YEAR	100 YEAR
REACH	AREA IDENTIFIER	None	None
	SEGMENT IDENTIFICATION		
	T_c OR T_t THROUGH BASIN REACH		
OVERLAND FLOW	SURFACE DESCRIPTION (TABLE E-1)	Bare packed soil	Bare packed soil
	"N" VALUE (TABLE E-1)	0.10	0.10
	FLOW LENGTH, L (TOTAL < 300 FT.) (ft.)	150	150
	LAND SLOPE, S (ft./ft.)	0.005	0.005
	To (min.) (TABLE E-2, OR FIGURE E-1)	23	14
SHALLOW CONCENTRATED FLOW	SURFACE DESCRIPTION (FIGURE E-3)	Nearly bare and untilled	Nearly bare and untilled
	FLOW LENGTH, L (ft.)	150	150
	FLOW SLOPE, S (ft./ft.)	0.005	0.005
	FLOW VELOCITY, V (FIGURE E-3) (fps)	0.7	0.7
	TRAVEL TIME T_t = L/(60V) (min.)	3.6	3.6
PIPE FLOW	PIPE DIAMETER, d (ft)	1.0	1.0
	CHANNEL SLOPE, S (ft./ft.)	0.005	0.005
	MANNINGS COEFFICIENT, n (APPENDIX F)	0.024	0.024
	$V = 0.59 d^{2/3} S^{1/2}/n$ (fps) (APPENDIX H)	1.74	1.74
	ASSUMED VELOCITY (fps)	1.7	1.7
	FLOW LENGTH, L (ft.)	340	340
	TRAVEL TIME T_{pf} = L/(60V) (min.)	3.3	3.3
T_c	$T_c = T_o + T_t + T_{pf}$ (min.)	30	21

NOTE - Table and all referenced tables, figures, and appendices from Stormwater Management Manual, Public Works Department, City of Grand Junction, June, 1994.

Development resulted in no change to flow path, thus, the time does not change from current conditions to developed conditions.

APPENDIX B

***RATIONAL METHOD* PEAK FLOW RUNOFF WORKSHEET**

Rational Method Peak Flow Runoff Worksheet

Project: Hanson Equipment
Prepared by: David R. Smuin
Date: June 5, 1996

SITE CONDITION: EXISTING CONDITIONS

BASIN	AREA			RUNOFF COEFFICIENT[1], C	
	SURFACE TYPE	SCS GROUP	ACREAGE, A	C_{2}	C_{100}
All	Traffic area (soil and gravel)	B	3.9	0.64	0.72
	Bare ground	B	2.0	0.18	0.24
	Pavement/Roof	B	1.5	0.93	0.95

TOTAL ACREAGE, A_T	WEIGHTED RUNOFF COEFFICIENT, C_w		CONCENTRATION TIME[2], T_c (min.)		INTENSITY[3], I (in./hr.)		PEAK RUNOFF $Q=C_w i A_T$ (cfs)	
	C_{2}	C_{100}	T_{c2}	T_{c100}	i_{2}	i_{100}	Q_{2}	Q_{100}
7.4	0.57	0.64	30	21	0.88	2.77	3.71	13.1

[1] - *Rational Method* runoff coefficients taken from Table B-1, **Stormwater Management Manual, Public Works Department, City of Grand Junction, June, 1994**

[2] - Time of Concentration as derived in attached Appendix A worksheet

[3] - Intensity taken from Table A-1, **Stormwater Management Manual, Public Works Department, City of Grand Junction, June, 1994**

Subbasins A, B, and C were combined for purposes of these calculations. The ratio of the area of each subbasin to the total area was used to determine the peak runoff from each subbasin discussed in the text.

Rational Method Peak Flow Runoff Worksheet

Project: Hansen Equipment
Prepared by: David R. Smuin
Date: June 5, 1996

SITE CONDITION: POST-DEVELOPMENT

BASIN	AREA			RUNOFF COEFFICIENT[1], C							
	SURFACE TYPE	SCS GROUP	ACREAGE, A	C_{02}	C_{100}						
	Traffic area (soil and gravel)	B	3.56	0.64	0.72						
	Bare ground	B	1.6	0.18	0.24						
	Pavement/Roof	B	2.24	0.93	0.95						
			TOTAL ACREAGE, A_T	WEIGHTED RUNOFF COEFFICIENT, C_W		CONCENTRATION TIME[2], T_C (min.)		INTENSITY[3], I (in./hr.)		PEAK RUNOFF $Q=C_W i A_T$ (cfs)	
				C_{02}	C_{100}	T_{C02}	T_{C100}	i_{02}	i_{100}	Q_{02}	Q_{100}
			7.4	0.63	0.69	30	21	0.88	2.77	4.10	14.1

[1] - *Rational Method* runoff coefficients taken from Table B-1, **Stormwater Management Manual, Public Works Department, City of Grand Junction, June, 1994**

[2] - Time of Concentration as derived in attached Appendix A worksheet

[3] - Intensity taken from Table A-1, **Stormwater Management Manual, Public Works Department, City of Grand Junction, June, 1994**

Subbasins A, B, and C were combined for purposes of these calculations, and the ratio of the area of each subbasin to the total area was used to determine the peak runoff from each subbasin discussed in the text

REVIEW COMMENTS

FILE #SPR-96-144 **TITLE HEADING:** Hanson Equipment

LOCATION: 2523 Highway 6 & 50

PETITIONER: Bob Hanson

PETITIONER'S ADDRESS/TELEPHONE: 2525 Highway 6 & 50
Grand Junction, CO 81505
243-7771

PETITIONER'S REPRESENTATIVE: Chris McCallum, TPI

STAFF REPRESENTATIVE: Mike Pelletier

NOTE: THE PETITIONER IS REQUIRED TO SUBMIT FOUR (4) COPIES OF WRITTEN RESPONSE AND REVISED DRAWINGS ADDRESSING ALL REVIEW COMMENTS.

CITY COMMUNITY DEVELOPMENT **6/28/96**
Mike Pelletier **244-1451**

1. They area between the proposed parts storage and the new paved parking lot can be graveled as shown, if there will be less than 30 vehicle trips per day to the parts building. If the number of trips is greater than 30, then it must be paved according to section 5-1-4-A-1 of the Zoning & Development Code. The intent of this requirement is to avoid creating an undue amount of dust. Respond in writing as to the expected number of vehicles per day traveling between the proposed parts storage building and the proposed paved parking lot.
2. If revised plans are needed due to staff comments, please submit four copies of revised, stamped plans with your response to comments. If the plans do not need revision, submit three copies.
3. Site improvements (including landscaping) must be constructed in accordance with the approved plans. Any modifications must be approved, in writing and/or with revised plans, by the Community Development Department. Failure to install site improvements as per the approved plans may delay the issuance of a certificate of occupancy.

CITY DEVELOPMENT ENGINEER **6/26/96**
Jody Kliska **244-1591**

1. As previously requested, dedication of Independent Ave. right of will be required. The drawing shows a 30' road easement. Independent Ave. is designated a bike route in the multi-modal plan. The street is designated a commercial street section, requiring a full right of way width of 52'. City code allows right of way dedication to be credited toward the TCP.

CITY UTILITY ENGINEER **7/3/96**
Trent Prall **244-1590**

Please contact Jodi Romero of the City Customer Service Division at 244-1580 for potential changes in sewer plant investment fees.

CITY FIRE DEPARTMENT **7/2/96**
Hank Masterson **244-1414**

1. One on-site fire hydrant will be required. Locate in 6" curb area north of 37 proposed parking spaces. This hydrant must be supplied by a minimum 8" fire line.
2. The proposed 5,000 square foot addition is required to be protected by a fire sprinkler system.
3. Submit complete sealed plans for the proposed addition and for the parts storage building to the fire department for our review and approval.

MESA COUNTY BUILDING DEPARTMENT **6/19/96**
Dan Davis **244-1651**

A building permit must be obtained, and all code requirements must be met. The truck repair building would need to be sprinkled upon first review. Please contact me if you have any questions.

GRAND JUNCTION DRAINAGE DISTRICT **6/25/96**
John Ballagh **244-4343**

The Drainage District does not have any known existing of planned facilities which are where the building addition is proposed.

CITY POLICE DEPARTMENT **6/25/96**
Dave Stassen **244-3587**

All storage and open areas should be lit with some type of pole light. The addition should be lit with security lighting (on a photo cell) on all three sides.

CITY PROPERTY AGENT **7/2/96**
Steve Pace **256-4003**

No final plat to review.

UTE WATER **7/1/96**
Gary Mathews **242-7491**

No objections. Waiting for Fire Department comments. Policies and fees in effect at the time of application will apply.

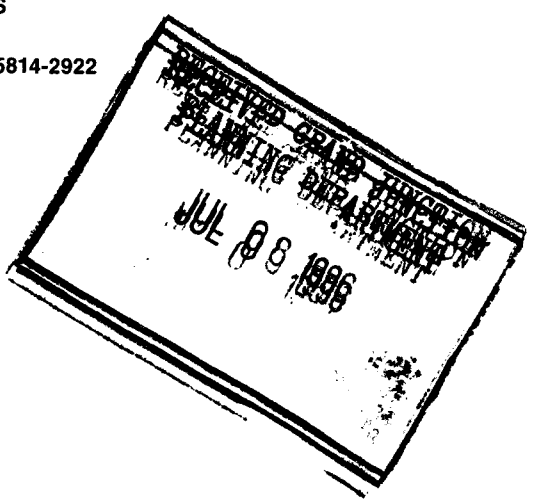
TO DATE, NO COMMENTS RECEIVED FROM:
City Attorney
Grand Valley Irrigation
Colorado Department of Transportation
Corp of Engineers

MIKE PELLETIER

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, SACRAMENTO
CORPS OF ENGINEERS
1325 J STREET
SACRAMENTO, CALIFORNIA 95814-2922

REPLY TO
ATTENTION OF

July 3, 1996



Regulatory Branch (199675303)

Mr. Michael Drollinger
City of Grand Junction
Community Development Department
250 North 5th Street
Grand Junction, Colorado 81505

Dear Mr. Drollinger:

We are responding to your written request for comment on the Hanson Equipment Expansion. The property is located within Section 10, Township 1 South, Range 1 West, Mesa County, Colorado.

Based on a site inspection by Mr. Randy Snyder of this office on July 2, 1996, we have determined that the proposed expansion will not require a Department of the Army permit.

We have assigned number 199675303 to this project. Please refer to this number in any correspondence with this office. If you have any questions, please write to Mr. Snyder or telephone (970) 243-1199.

Sincerely,

Ken Jacobson

Ken Jacobson
Chief, Southwestern Colorado
Regulatory Office
402 Rood Avenue, Room 142
Grand Junction, Colorado 81501-2563

Copy Furnished:

Mr. Chris McCallum, TPI, 552 25 Road, Grand Junction, Colorado 81505

RESPONSE TO REVIEW COMMENTS

FILE #SPR-96-144

Location: 2523 Hwy 6 & 50
Petitioner: Bob Hanson
Petitioner's Address/Telephone: C/O Chris McCallum
Grand Junction, CO 81505
243-4642
Petitioner's Representative: Chris McCallum, TPI
Staff Representative: Mike Pelletier
Response Submitted: July 11, 1996

+++City Community Development, Mike Pelletier+++
No more than 20 vehicles per day is expected at this time.
Four copies of revised stamped plans are included.

+++City Development Engineer, Jody Kliska+++
Per your request, see attached copy of legal description.

+++City Utility Engineer, Trent Prall+++
Jodi Romero has been contacted, we are aware of plant investment fees.

+++City Fire Department, Hank Masterson+++
Complete set of plans will be submitted for review.

+++Mesa County Building Department, Dan Davis+++
We have contacted Mr. Davis and will send him a complete set of building plans and obtain a building permit.

+++Grand Junction Drainage District, John Ballagh+++
No response necessary.

+++City Police Department, Dan Stassen+++
Storage buildings will have photo cell lights on three sides.

Sincerely,

Chris McCallum

CERTIFICATE OF OCCUPANCY
CITY OF GRAND JUNCTION/MESA COUNTY, COLORADO
BUILDING DEPARTMENT

Permit Number: 58768 12/29/97

Units: 0 **Permit Type: BEMP** Jurisdiction: GRAND JUNCTION

Permission is hereby granted to BOB HANSON
to occupy the building situated at:
02523 00 HWY 6 & 50

Lot No.: 0 **Block No.:** 0 Filing No.: 0
Subdivision:
Tax Schedule No.: 2945-103-00-079

for the following purpose: **expanding shop**

This Certificate issued **in conformity** to Section 109, Uniform Building Code

Inspector Harold O'Neal /By Dell C
Mike Pelletier 2/5/98
city planning

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CITY OF GRAND JUNCTION/MESA COUNTY, COLORADO
BUILDING DEPARTMENT

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Mike Pelletier 2/5/98
city planning

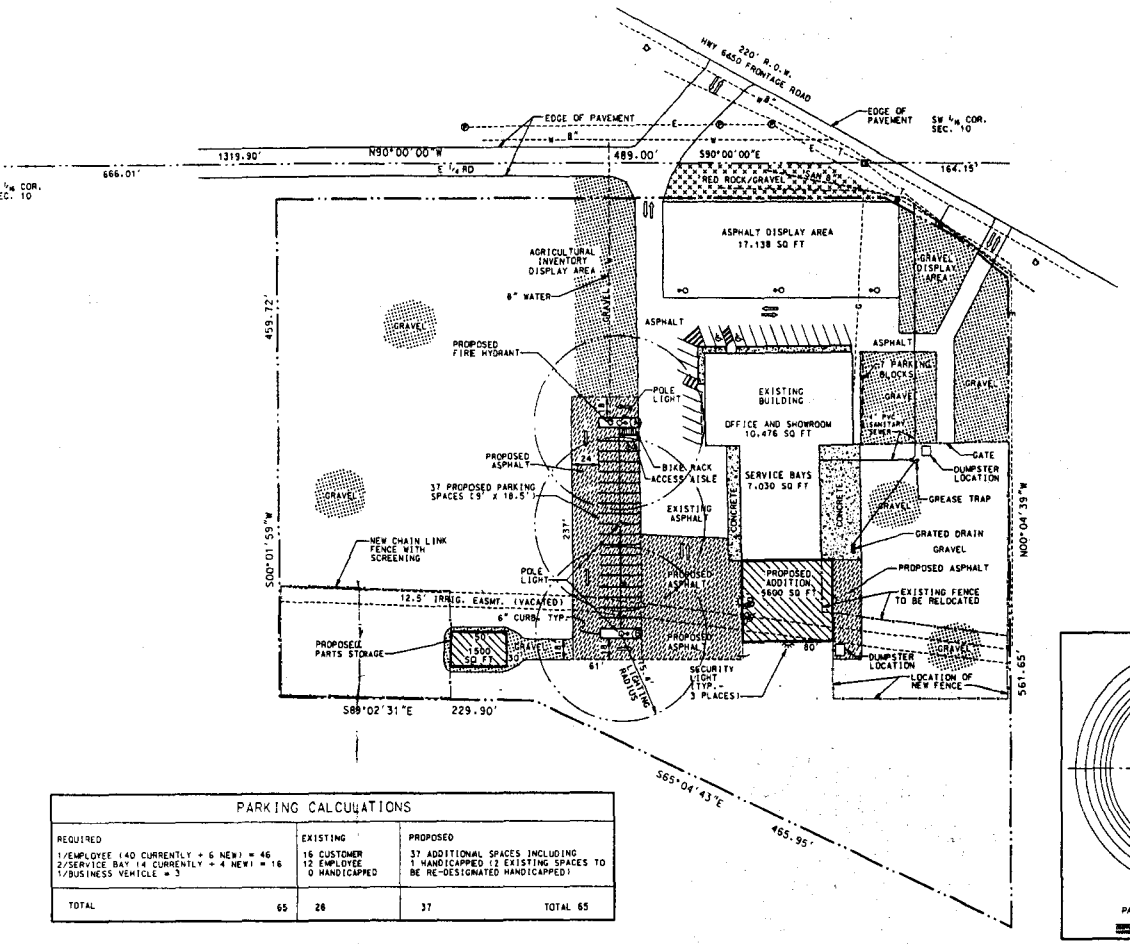
Hansen Equipment - SPR 96-144
2523 Hwy 6 & 50

This map was developed by the City of Grand Junction from aerial photography and other public records. The City does not guarantee the accuracy of this map.

N
W E
S

Orthophoto flown on 3/21/94

MP
6/24/96



NORTH

SCALE: 1"=50'

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS DETAILS.

THE CONTRACTOR SHALL HAVE A SIGNED COPY OF THE PLANS AND A COPY OF THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS ON THE JOB SITE.

UTILITY COMPOSITE

WATER	UTE
SEWER	CITY OF GRAND JUNCTION
ELECTRIC	PUBLIC SERVICE
TELEPHONE	US WEST COMMUNICATIONS
GAS	PUBLIC SERVICE

7.7 ACRES
ZONE C2 (HEAVY COMMERCIAL)

LIGHTING SPECIFICATIONS

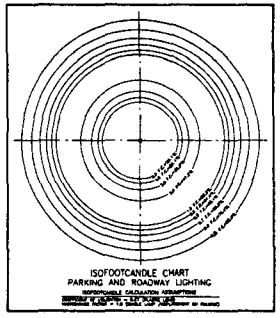
Parking Lighting
Type - pole Mount
Maximum height - 25'
Fixture - G.E. Model No. M2RR159M20MN3
Lamp - 150W HP-Sodium, Mogul Base, NAED No.- 331835
Initial Lumens - 16000

LEGEND

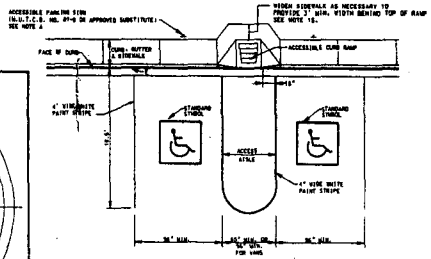
- W — WATER
- G — GAS
- E — ELECTRIC
- S — SEWER
- MANHOLE
- HYDRANT
- LIGHTPOLE
- SECURITY LIGHT
- WATER METER
- TELEPHONE & ELECTRIC RISER
- POWER POLE

PARKING CALCULATIONS

REQUIRED	EXISTING	PROPOSED
1/EMPLOYEE (40 CURRENTLY + 6 NEW) = 46 2/SERVICE BAY (4 CURRENTLY + 4 NEW) = 16 1/BUSINESS VEHICLE = 3	16 CUSTOMER 12 EMPLOYEE 0 HANDICAPPED	37 ADDITIONAL SPACES INCLUDING 1 HANDICAPPED (2 EXISTING SPACES TO BE RE-DESIGNATED HANDICAPPED)
TOTAL 65	28	37 TOTAL 65



ISOFOOTCANDLE CHART
PARKING AND ROADWAY LIGHTING



NOTES:

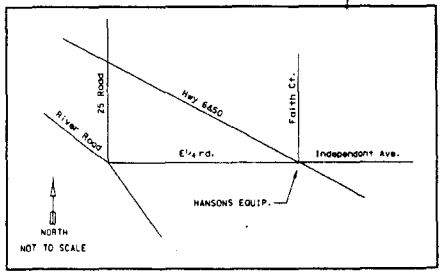
A. ACCESSIBLE PARKING SPACES SHALL BE DESIGNATED AS RESERVED FOR THE DISABLED BY A SIGN SHOWING THE SYMBOL OF ACCESSIBILITY (SEE UFAS 4.30.7). SPACES COMPLYING WITH NOTE B SHALL HAVE AN ADDITIONAL SIGN "VAN ACCESSIBLE" MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. SUCH SIGNS SHALL BE MOUNTED SO THAT CANNOT BE OBSCURED BY A VEHICLE PARKED IN THE SPACE.

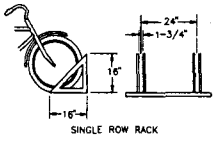
B. ONE IN EVERY EIGHT ACCESSIBLE SPACES, BUT NOT LESS THAN ONE, SHALL BE SERVED BY AN ACCESS AISLE 96" WIDE AND SHALL BE DESIGNATED "VAN ACCESSIBLE" AS SPECIFIED BY NOTE A.

C. PARKING ACCESS AISLES SHALL BE PART OF AN ACCESS ROUTE TO THE BUILDING OR FACILITY ENTRANCE. TWO ACCESSIBLE PARKING SPACES MAY SHARE A COMMON ACCESS AISLE. PARKING SPACES AND ACCESS AISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 IN ALL DIRECTIONS.

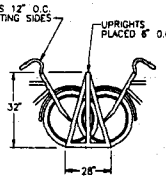
STANDARD ACCESSIBLE
PARKING STALL DETAIL

VICINITY MAP





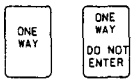
SINGLE ROW RACK



DOUBLE ROW RACK

BICYCLE RACK DETAIL

TRAFFIC SIGN LEGEND



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GENERAL NOTES

1. ALL PORTLAND CEMENT CONCRETE SHALL BE COLORADO DIVISION OF HIGHWAYS CLASS "B". ALL CONCRETE SHALL BE MIXED, PLACED, CURED AND TESTED IN ACCORDANCE WITH CITY OF GRAND JUNCTION STREET CONSTRUCTION SPECIFICATIONS.
2. ALL CONCRETE WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED BY A LICENSED CONC. CUTTER & SIDEWALK CONTRACTOR. A PERMIT IS REQUIRED AT EACH LOCATION WHERE CONCRETE IS REMOVED, ALTERED OR PLACED.
3. ALL CONCRETE RAMPS, SIDEWALKS, CURBS, GUTTERS AND OTHER CONCRETE WORK SHALL BE UNDERLAID WITH AGGREGATE BASE COURSE (CLASS 5) COMPACTED TO AT LEAST 95% OF AASHTO T-180 MAXIMUM DENSITY. SEE DETAILS FOR BASE THICKNESS. THE TOP 6 INCHES OF SUBGRADE UNDER ALL CONCRETE SHALL BE COMPACTED TO AT LEAST 95% OF AASHTO T-99 MAXIMUM DENSITY. ALL SATURATED OR UNSUITABLE SUBGRADE MATERIAL SHALL BE REMOVED AND REPLACED.
4. ANY EXISTING PAVEMENT NOT DESIGNATED FOR REMOVAL AND/OR IS DAMAGED BY CONSTRUCTION SHALL BE REPLACED IN-KIND BY CONTRACTOR.
5. DRAWING INDICATES TYPICAL SECTION ONLY. CONDITIONS AND/OR OBSTRUCTIONS MAY NECESSITATE VARIATIONS OR REPOSITIONING. ALL LOCATIONS SHALL BE APPROVED ON AN INDIVIDUAL BASIS BY THE CITY ENGINEER OR HIS REPRESENTATIVE.
6. IN ALL CASES, ACCESSIBLE RAMPS SHALL BE ALIGNED WITH STREET CROSSWALKS.
7. AN APPROVED CURING/SEALING COMPOUND SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACE IMMEDIATELY AFTER FINISHING.
8. ALL CONCRETE SHALL BE PROTECTED FROM FREEZING FOR 5 DAYS AFTER BEING PLACED. NO CONCRETE SHALL BE PLACED ON FROZEN GROUND.
9. MINIMUM SPACING BETWEEN JOINTS IN CURB, GUTTER & SIDEWALK IS 6 FEET.
10. MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS 10' IN ANY DIRECTION.
11. WATER SHALL NOT BE ADDED TO CONCRETE SURFACES DURING FINISHING OPERATIONS.
12. THE MAXIMUM SLOPE ALLOWED ON ANY CURB RAMP OR SIDEWALK SHALL BE 1":1'. (8.33%).
13. THE SURFACE OF ALL ACCESSIBLE RAMPS AND FLARED SIDES SHALL BE FINISHED WITH A COURSE BROOMED TEXTURE PERPENDICULAR TO THE SLOPE OF THE RAMP.
14. ALL HANDICAP RAMPS, PARKING STALLS, LANDINGS, ETC., SHALL CONFORM TO THE UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) LATEST EDITION.
15. THE ADDITIONAL 3' SIDEWALK WIDTH AT HANDICAP RAMPS AT BACK OF CURB AND GUTTER AND SIDEWALK IS NOT REQUIRED WHERE IT WOULD REQUIRE REMOVAL OF EXISTING STREETS.

ACCEPTED FOR CITY OF GRAND JUNCTION
APPROVED BY THE CITY PLANNING DEPT. IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY LOCATE AND IDENTIFY EASEMENTS AND PROPERTY LINES.

Date 8-21-96

COLORADO REGISTERED PROFESSIONAL ENGINEER 28322

Signed
Title
Date

REVISIONS

DATE	REMARKS	BY

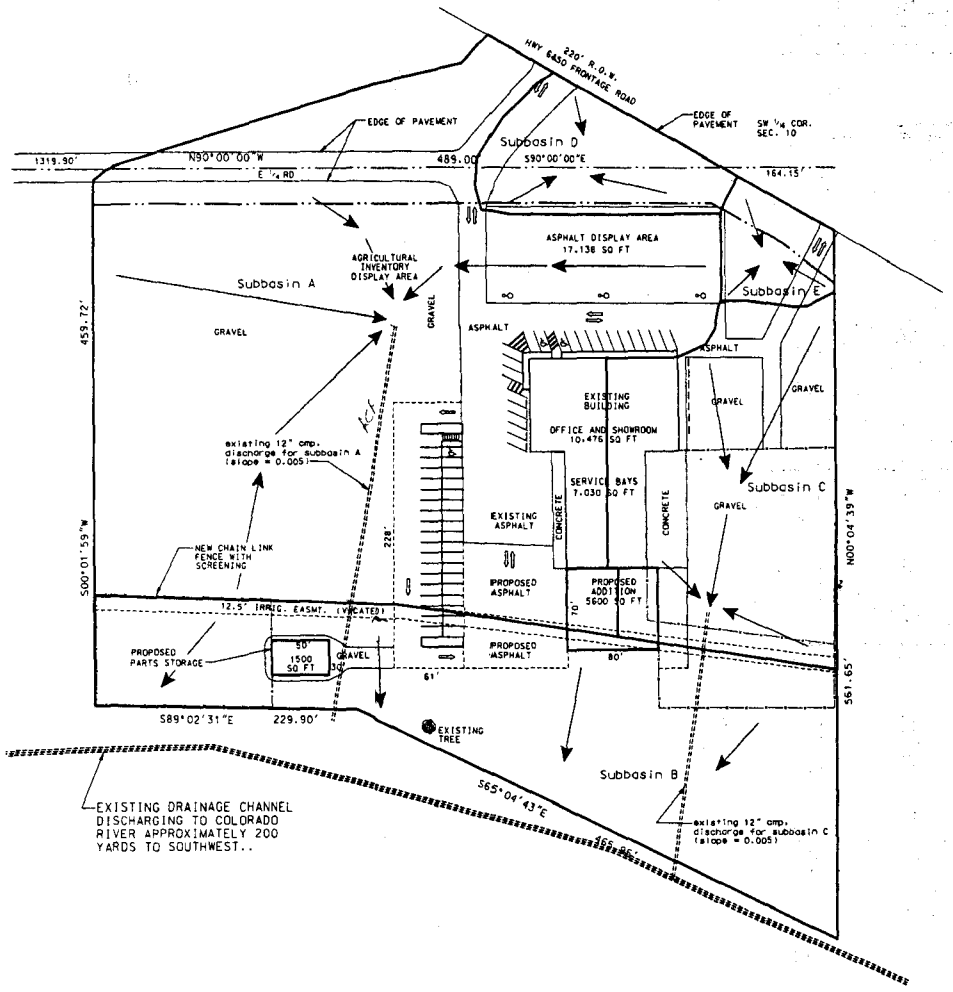
Site Plan
Hanson Equipment
2523 Highway 6&50
Grand Junction, CO. 81505

TPI
552 -25- Road
Grand Junction, CO. 81505
970-243-4642

HydroTerra
Environmental Consulting

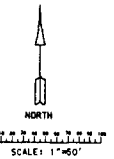
PROJECT: Hanson Equip. Site Plan
SCALE: as shown
DATE DRAWN: June 08,1996
LATEST REVISION: July 24, 1996
SHEET 1 OF 4

SPR-1996-144



PROPOSED DRAINAGE

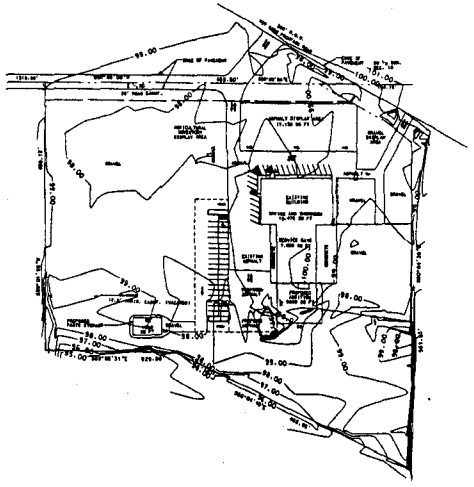
Scale: 1" = 50'



LEGEND

DRAINAGE (TYPICAL)

CONTOUR LINE (1' CONTOUR INTERVAL)



EXISTING TOPOGRAPHY

Scale: 1" = 100'

Utilities Engineer

Signed

Title

Date

REVISIONS

DATE	REMARKS	BY

Drainage Plan

Hanson Equipment
2523 Highway 6&50
Grand Junction, CO. 81505

TPI
552 -25- Road
Grand Junction, CO. 81505
970-243-4642

HydroTerra
Environmental Consulting

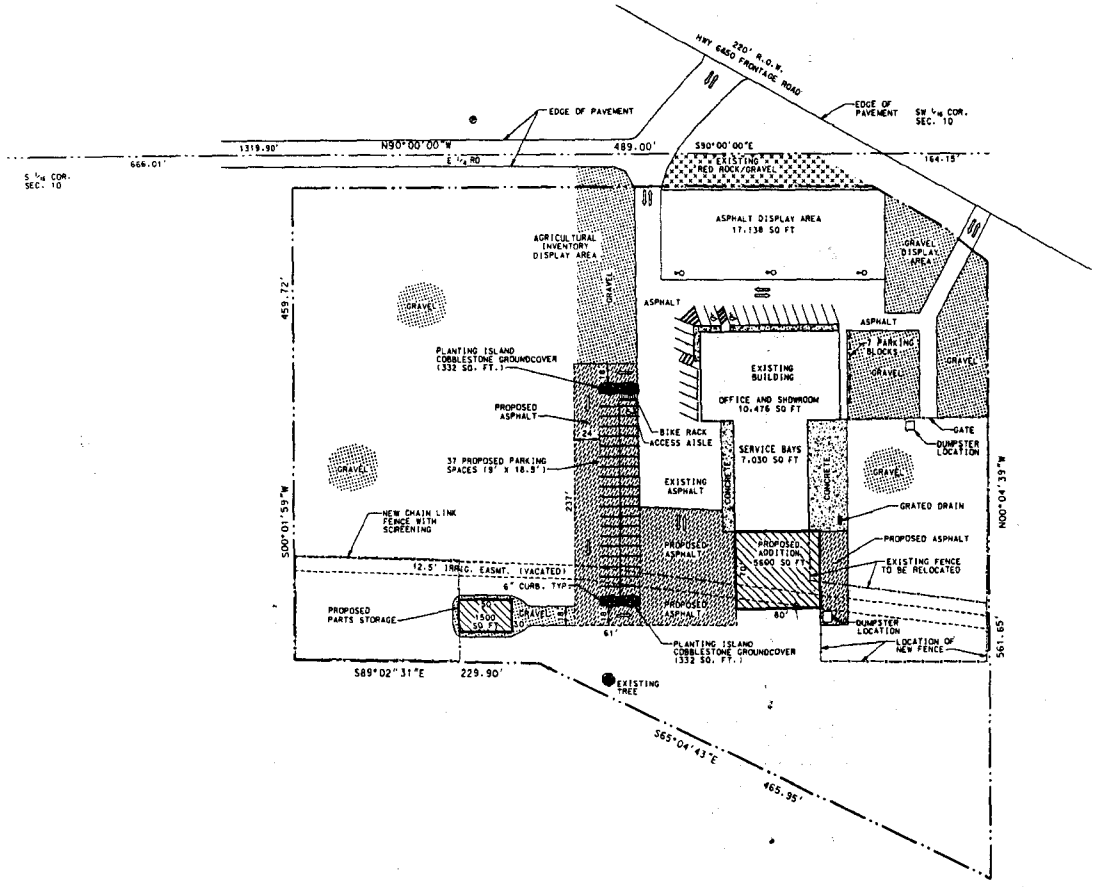
PROJECT
Hanson Equip.
Drainage Plan

SCALE
as shown

DATE DRAWN
June 08,1996

LATEST REVISION
July 24, 1996

SHEET 3 OF 4



NORTH

SCALE: 1"=50'

ALL CONSTRUCTION AND MATERIALS SHALL COMPLY WITH THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS DETAILS.

THE CONTRACTOR SHALL HAVE A SIGNED COPY OF THE PLANS AND A COPY OF THE CITY OF GRAND JUNCTION SPECIFICATIONS AND STANDARDS ON THE JOB SITE.

LEGEND

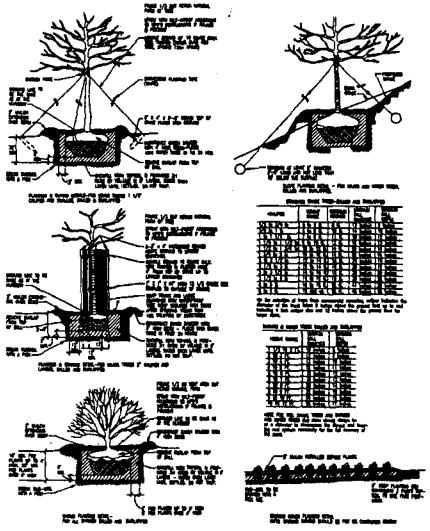
- PROPOSED TREES QUANTITY: 4 HONEY LOCUST 1-1/2 CALIPER MIN. PURCHASE SIZE 35' AT MATURITY
- PROPOSED SHRUBS QUANTITY: 16 TAM JUNIPERS 5 GAL. MIN. PURCHASE SIZE 1' X 4' AT MATURITY
- EXISTING SHRUBS 444 SQ. FT.
- EXISTING GRAVEL
- PROPOSED ASPHALT
- PROPOSED BUILDING
- EXISTING CONCRETE
- EXISTING RED ROCK

LANDSCAPING NOTE

ALL LANDSCAPING REQUIREMENTS AND INSTALLATION SHALL CONFORM WITH CITY OF GRAND JUNCTION ZONING AND DEVELOPMENT CODE (JULY 1989, AS AMENDED)

AN UNDERGROUND PRESSURIZED IRRIGATION SYSTEM SHALL BE INSTALLED TO SERVE ALL LANDSCAPED AREAS

PLANTING DETAIL



Utilities Engineer

Signed

Title

Date

REVISIONS		
DATE	REMARKS	BY

Landscape Plan

Hanson Equipment
2523 Highway 6&50
Grand Junction, CO. 81505

TPI
552 -25- Road
Grand Junction, CO. 81505
970-243-4642

HydroTerra
Environmental Consulting

PROJECT: Hanson Equip. Landscape Plan

SCALE: as shown

DATE DRAWN: June 08,1998

LATEST REVISION: July 24, 1998

SHEET 2 OF 4