

# 1000's of details—one project: Project Management

2019 Florida Recreation and Park Association  
Annual Conference

Chris Nunes, CPRE  
Director of Parks and Recreation  
The Woodlands Township (Texas)



# FRPA

**FLORIDA RECREATION  
& PARK ASSOCIATION**

# Objectives

- Review the project management process from *bid to close out*
- Identify methods in which to reduce cost, project time line and *overall adherence to specifications*
- Identify terms and language related to project management



"Expect the best, plan for the worst, and prepare to be surprised." ~ Denis Waitley

# Project Management



*“Project management is the art of creating an illusion that any outcome is the result of a series of predetermined, deliberate acts when, in fact, it was dumb luck.”*

Harold Kerzner, *Project Management*, pg. 3



# Project Management



**Project** management is the planning, organizing, directing, and controlling of *company resources* for a relatively *short term objective* that has been established to *complete specific goals* and objectives.”

Harold Kerzner, *Project Management*, pg. 4





# Project Management

## What is a Project?

- Standards and specifications
- Start and end dates;
- Funding constraints
- Resources heavy (time, money, people, & equipment)



# Project Management

## Constraints

- Scope
- Time
- Resources
- Public Need/Demand (time)



Where do we traditionally  
have issues???

# Successful Project Management



- Within specifications
- Within allotted time period
- Within the budgeted costs
- Accepted by the customer/user
- Minimal and mutual scope changes
- Without disturbing workflow (other projects)
- Other??



# Project Managers Role

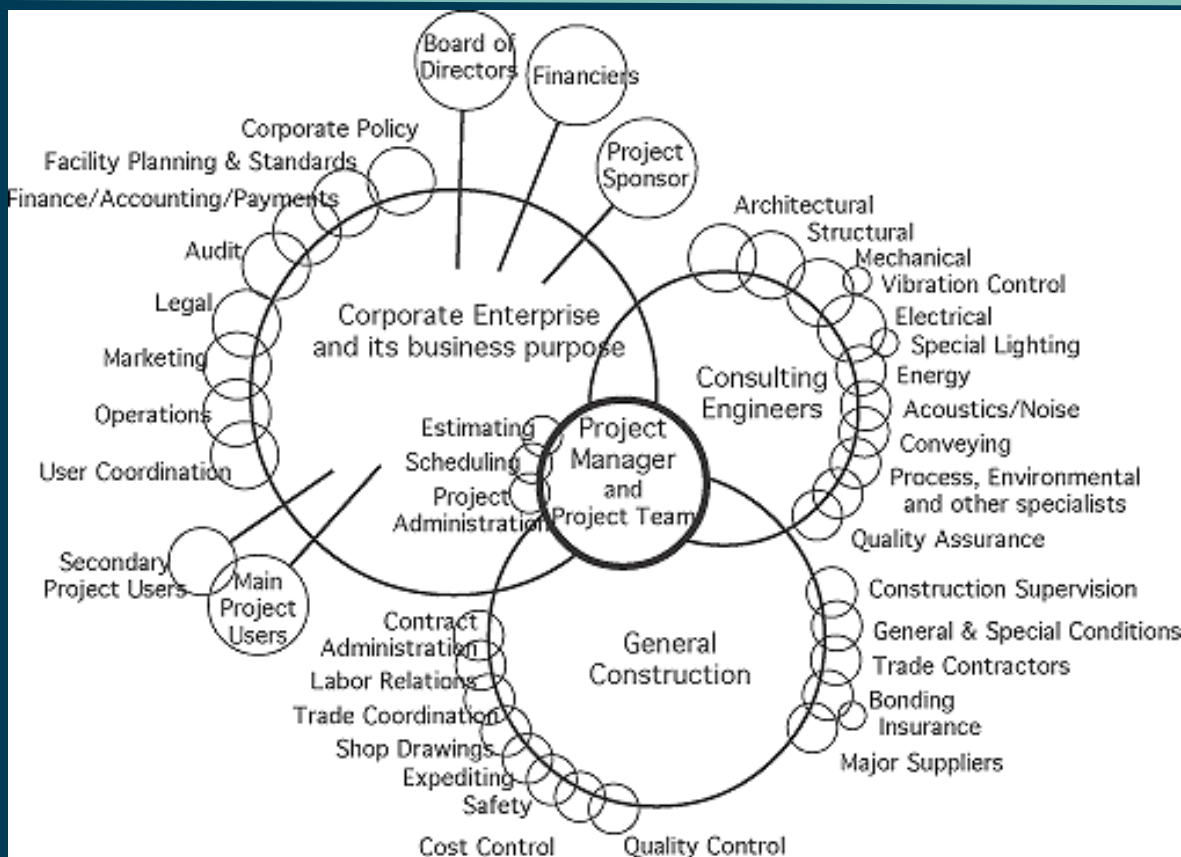
Responsible for  
coordinating, integrating  
and *negotiating* activities  
across multiple and  
functional groups

Who are these groups??





# Multiple Groups????????????????????



# Project Managers- To be successful



- Strong communication skills
- Strong interpersonal skill
- Balance technical and managerial functions
- Overcome organizational constraints;
- Cope with and survive risks



# Project Managers- specific skills



- Team Building
- Leadership
- Conflict Resolution
- Technical Expertise
- Planning
- Organizing
- Entrepreneurship
- Administration
- Management support
- Resource allocation



# Impact of Poor Project Management



- Delays
- Increased Cost
- Waste of Resources
- Quality
- Dissatisfaction
- Reputation





# What is a Critical Path/Timeline??



*“Sequence of activities* in a project plan which must be completed on time for the project to *complete on due date*”

*An activity* on the critical path cannot be started until its *predecessor activity* is complete; if it is delayed for a day, the entire *project will be delayed* for a day unless the activity following the delayed activity is completed a day earlier.

# What is a Critical Path/Timeline??

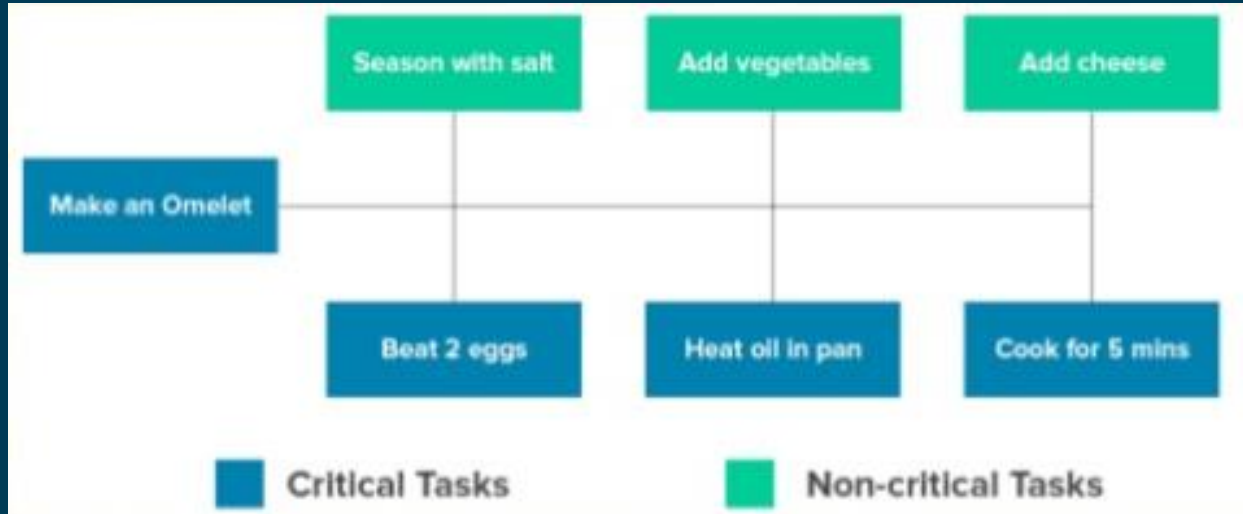


Timeline for project which includes:

- All activities required
- Duration each activity takes
- Dependencies between the activities and,
- Logical end points such as milestones



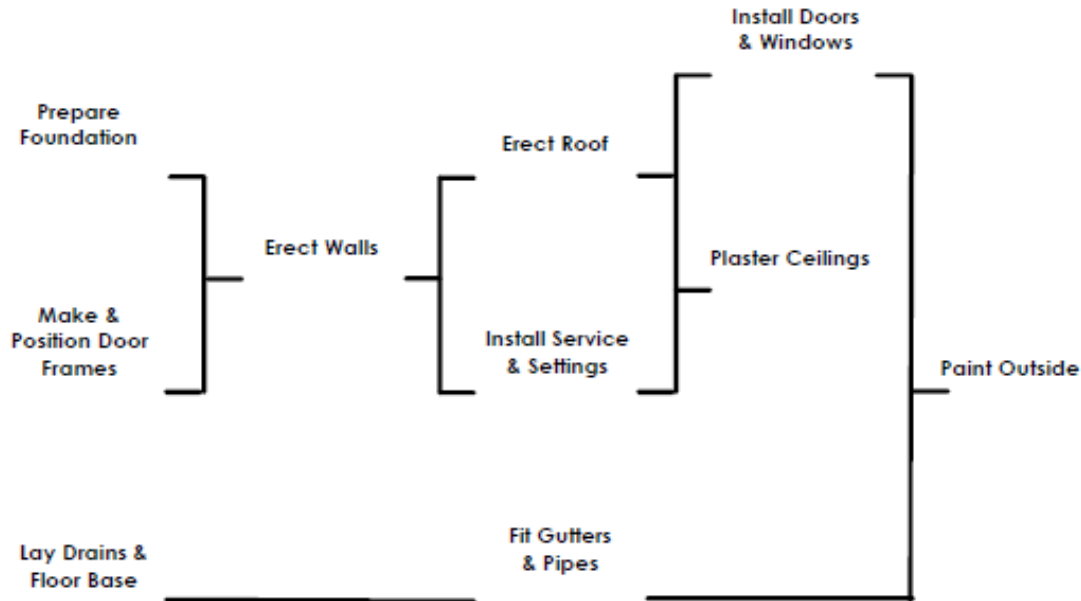
# Critical Path/Timeline??



# Critical Path/Timeline??



## Building a Facility

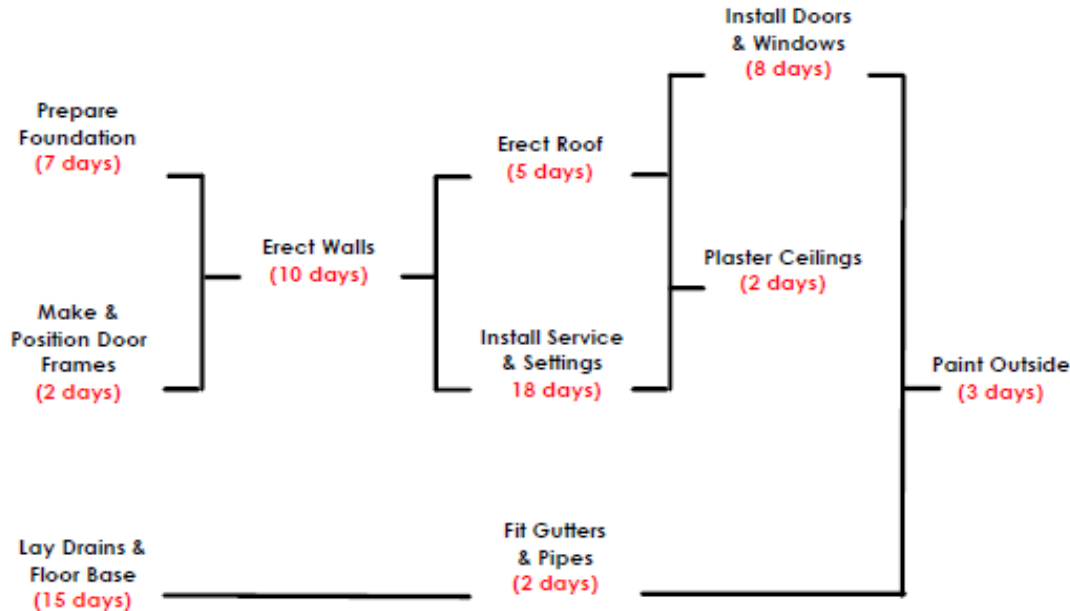




# Critical Path/Timeline??



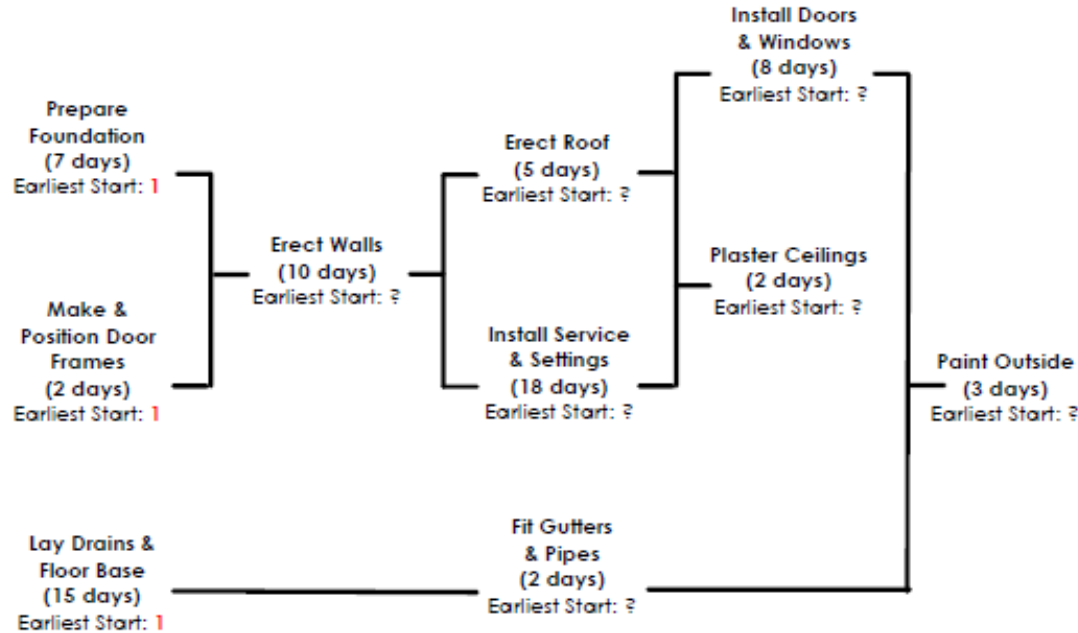
## Building a Facility



# Critical Path/Timeline??



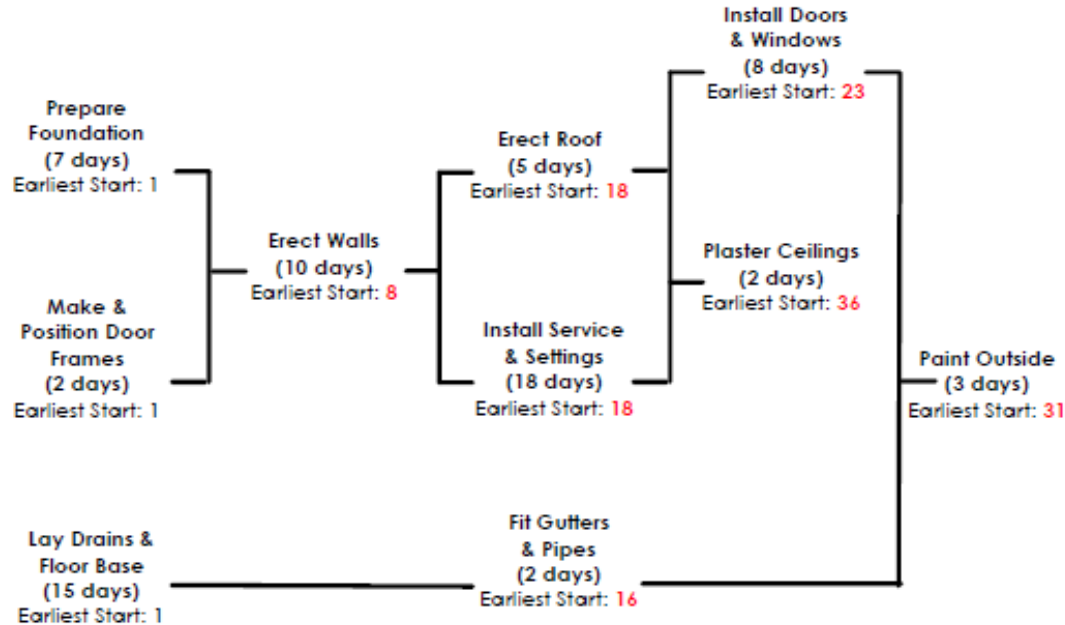
## Building a Facility



# Critical Path/Timeline??



## Building a Facility



# Critical Path/Timeline??

- Failure to understand time for each task
- **Interdependency** on time for each task
- Build in weather, meetings, holidays,
- Disruptions of schedule- **political, shipping, internal**





# How does this go from bid to reality??



# How does this go from bid to reality??



# How does this go from bid to reality??





# Bid to Reality-Components



- Planning-  
Creating/then fine tuning, the overall project plan
- Monitoring,  
tracking &  
reporting progress



# How does this go from bid to reality?



No matter the size of the project there are some **fundamental keys** to the management of the project!

- Award of Bid
- Contract Execution
- Pre Construction
- Construction/Contract Management
- Punch List
- Substantial Completion
- Final Acceptance of Work

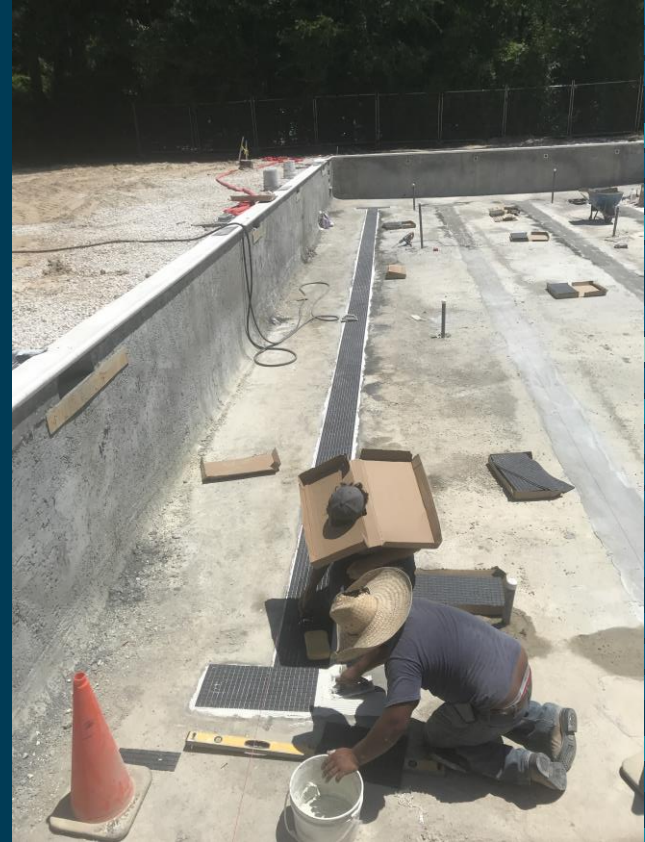




# Award of Bid

City/Agency has received multiple bids for the project- Now what??

- Does bid meet all standards- YES/NO
- Bonds- Bid, Performance, Payment
- Reference checks
- Who is the **lowest responsive bid**?
- Do you need to award to the lowest responsive bid?




# Award of Bid



What is the role of a bond?

- Protect the agency
- **Cost** will be borne by the agency
- Assures the financial viability of a contractor
- Other???

	ALLMERICA FINANCIAL CITIZENS INSURANCE HANOVER INSURANCE	The Hanover Insurance Company Massachusetts Bay Insurance Company 440 Lincoln Street Worcester, MA 01653	Citizens Insurance Company of America 645 West Grand River Howell, MI 48843
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**PERFORMANCE BOND**

BOND NO.: 1064503

**THE AMERICAN INSTITUTE OF ARCHITECTS**

AIA Document A312

*Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.*

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<b>CONTRACTOR (Name and Address):</b> Hou-Scape, Inc. 17725 Telge Road Cypress, TX 77429	<b>SURETY (Name and Principal Bond Office):</b> The Hanover Insurance Company 440 Lincoln Street Worcester, MA 01653
---------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------

**OWNER (Name and Address):**  
The Woodlands Township  
2801 Technology Forest Boulevard, The Woodlands, TX 77381

**CONSTRUCTION CONTRACT**  
Date: \_\_\_\_\_  
Amount: \$2,679,230.06 Two Million Eight Hundred Seventy Nine Thousand Two Hundred Thirty Dollars and 06/100

**Description (Name and Location):** Bear Branch Park Phase I and Phase III located at 5200 Research Forest Drive, The Woodlands, Texas 77381

**BOND**  
Date (Not earlier than Construction Contract Date): \_\_\_\_\_  
Amount: \$2,679,230.06 Two Million Eight Hundred Seventy Nine Thousand Two Hundred Thirty Dollars and 06/100

**Modifications to this Bond:** ☒ None ☐ See Page 3

<b>CONTRACTOR AS PRINCIPAL</b> Company: <u>Hou-Scape, Inc.</u> (Corporate Seal) Signature: <u>[Signature]</u> Name and Title: <u>Paula Hill / President</u>	<b>SURETY</b> Company: <u>The Hanover Insurance Company</u> (Corporate Seal) Signature: <u>[Signature]</u> Name and Title: <u>Rebecca Garza</u> Attorney-in-Fact
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(Any additional signatures appear on page 3)

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<b>(FOR INFORMATION ONLY - Name, Address and Telephone)</b> AGENT or BROKER: Technical Assurance, L.L.C. 26623 Oak Ridge Drive The Woodlands, TX 77380 281-206-9997	<b>OWNER'S REPRESENTATIVE (Architect, Engineer or other party):</b>
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AIA DOCUMENT A312 - PERFORMANCE BOND - DECEMBER 1994 ED. - AIA®  
THE AMERICAN INSTITUTE OF ARCHITECTS, 1735 NEW YORK AVE., N.W., WASHINGTON, D.C. 20006

A312-1994 1

141-0772 (10/04)

# Award of Bid-



**Bid Tabulation Form for Bear Branch Park Phase I and III**

	<b>Millis Dev</b>	<b>Houscape</b>	<b>Gadberry</b>
Phase I only	\$2,933,096.75	\$2,360,204.14	\$2,578,782.68
Phase III only	\$829,966.66	\$925,858.86	\$1,114,030.85
Phase I and III (one vendor)	\$3,742,263.41	\$3,286,063.00	\$3,692,813.53
Phase I + III (multiple vendors)	\$3,190,170.80		
Phase I + III-(multiple vendors savings)	\$95,892.20		
Phase I only	\$2,933,096.75	\$2,360,204.14	\$2,578,782.68
Phase III only	\$829,966.66	\$925,858.86	\$1,114,030.85
Parking Lot Deduct	-\$272,724.00	-\$406,832.94	-\$608,398.25
Revised Parking Lot (Phase III Only)	\$829,966.66	\$925,858.86	\$505,632.60
Phase I + Lowest Revised Phase III (one vendor)	\$3,490,339.41	\$2,879,230.06	\$3,084,415.28
Phase I + III (multiple vendors)	\$2,865,836.74		
Phase I + III-(multiple vendors savings)	\$13,393.22		

# Contract Execution

Ughhhhh....  
Time to make  
nice with Legal  
Counsel



# Contract Execution

## Key elements in your contract

- **Scope of Work**
- Insurance
- **Supply of Utilities**
- What is a working day/rain day?
- **Permits**
- Schedule
- **Liquated Damages**
- Safety of site
- **Losses from natural causes**
- Constriction Plans/Specifications





# Contract Execution



## Scope of Work

*Provide all necessary labor, materials, supplies, permits, and equipment to renovate and/or build Bear Branch Park Phase I and III which includes but is not limited to: pool renovation, pool bathhouse renovation, new maintenance building, parking lot renovation/expansion (Deduct Alt A), and landscape improvements, as outlined in the plans attached and developed by Burditt Land Place inclusive of any and all coordination with permitting entity.*

Provide a concept of the work proposed

- Work proposed
- Size of project
- Trades needed



# Contract Execution



## Supply of Utilities

### 12. WATER AND ELECTRICITY DURING CONSTRUCTION

The Owner may provide water and electricity in support of the Contractor at existing facilities within the site of the Work. If so provided, the Contractor shall make all connections, furnish all necessary extensions, and remove same upon completion of the Work.

Important due to:

- Cost to install utilities
- Cost for services
- Timeline

# Contract Execution



## Permits

### 13. PERMITS

Permits and licenses, inclusive of SWPPP, water taps and other service connections, necessary for the prosecution of the Work shall be secured and paid for by the Contractor.

Important due to:

- Timeline- permit, review, inspection, re inspection
- Do you understand electrical usage?
- Relationships with other city/districts
- Cost for services

# Contract Execution



## Liquated Damages

### 41. LIQUATED DAMAGES

Time is of the essence of the Contract. Delays inconvenience the traveling public, obstruct traffic, interfere with and delay commerce, and increase risk to roadway users. Because the Owner finds it impractical to calculate the actual cost of delays, it has adopted the following formula to calculate liquidated damages for failure to complete the Work of the Contract on time. Accordingly, the Contractor agrees:

- a) To pay \$1250 liquidated damages for each Working Day beyond the number of working days established for completion of the Work; and
- b) To authorize the Owner to deduct these liquidated damages from any money due or coming due to the Contractor.

Important to:

- Manage timeline
- Manage damages to agency

# Contract Execution



## Losses from natural causes

### 36. LOSSES FROM NATURAL CAUSES

All loss or damage to the Contractor, arising out of the nature of the Work to be done, or from the action of the elements, or from any unforeseen circumstances in the prosecution of the same, or from unusual obstructions or difficulties which may be encountered in the prosecution of the Work, shall be sustained and borne by the Contractor at his sole cost and expense.

Important due to:

- What happens if there is a flood?
- What happens if there is a tornado?
- What happens if there is a leak?

# Pre Construction Meeting

- Notice to proceed
- Mobilization
- Key Contacts (staff, inspectors, owner's rep, agent's rep)
- Progress meetings
- Payment schedule
- Project schedule



# Pre Construction Meeting



## Notice to proceed

- Contract start date
- Contract end date
- **Key to damages**



November 30, 2017

Paula Hill  
President/Owner  
Hou-Scape  
17725 Telge Road  
Cypress TX 77429

RE: Bear Branch Park Renovation Phase I and III C-2017-0419

Dear Paula

Please consider this your official Notice to Proceed on the project named above. You are hereby authorized to proceed with construction as of December 5, 2017. The Work shall be completed by June 1, 2018 as specified in the contract documents.

Please ensure that all submittals required by the Contract Documents have been submitted and reviewed by the Owner or Owner's designated representative (Burditt) prior to ordering any related materials or completing any related work. Work cannot begin until all applicable submittals have been reviewed.

The Township has appointed Chris Nunes as the Township's Representative who will be your single point of contact. If you have any questions, please contact me at [cnunes@thewoodlandstowship-tx.gov](mailto:cnunes@thewoodlandstowship-tx.gov) or 936-672-3907

Sincerely,

Chris Nunes  
Director of Parks and Recreation



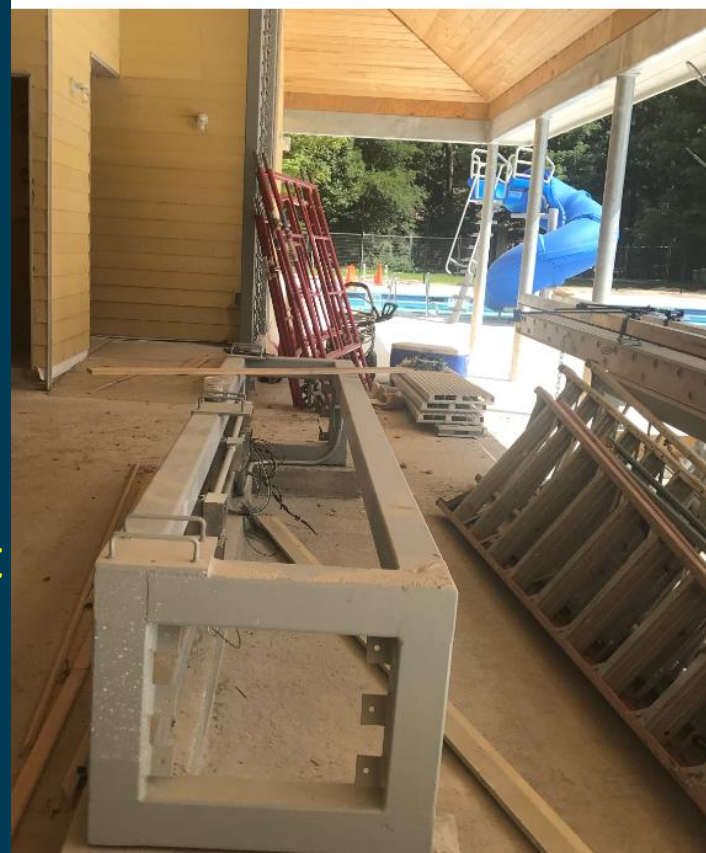
# Pre Construction Meeting



## Key Contacts

- One for each side
- How does communication work between each side?
- What authority does each have to make decisions?

Project management is somewhat akin to marriage- give and take



# Pre Construction Meeting



## Payment schedule

- Net 10 or net 30?
- RETAINAGE!!!!!!

When does the clock start for payment?

- Release of liens against owner

<b>TO OWNER:</b>		<b>PROJECT:</b>	<b>APPLICATION NO.</b> 10
The Woodlands Township 2801 Technology Forest Drive The Woodlands, Texas 77381 Attn: Chris Nunes		Bear Branch Park Pool Renovations Ph. I & III	PERIOD TO: 6/28/2018 PROJECT NO: C-2017-0419
<b>FROM CONTRACTOR:</b>		<b>VIA ARCHITECT:</b>	<b>CONTRACT DATE:</b> 12/5/2017 (NTP)
Hou-Scape Inc. P.O. Box 2449 Cypress, Texas 77410		Burditt Consultants 310 Longmire Road Conroe, Texas 77302 Contract For: Sitework, Landscape & Irrigation	

### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.  
Continuation Sheet is attached.

1. Original Contract Sum .....	\$ 2,879,230.60
2. Net change by Change Order.....	(\$21,411.09)
3. Contract Sum To Date.....	\$2,857,819.51
4. Total Completed & Stored To Date..	\$2,722,547.78
5. Retainage:	
a. 10% of completed work \$190,445.19	
b. _____% of Stored Material	
Total Retainage.....	\$272,254.78
6. Total Earned Less Retainage.....	\$2,450,293.00
7. Less Previous Cert. for Payment....	\$2,125,596.38
8. Current Payment Due.....	\$324,696.62
9. Balance to Finish, And Retainage..	\$407,526.51

CHANGE ORDER SUMMARY	Additions	Deductions
Total change approved in previous months by Owner	\$ 7,437.25	\$(30,796.34)
Total approved this month	\$ 1,950.00	\$(23,361.09)
Totals		\$(21,411.09)
Net Change by Change Order		

The undersigned Contractor certifies to the best Contractor's knowledge, information and belief that the work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for the work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment as shown herein

Contractor:

By: Paula Hill Date: 6/28/18  
Paula Hill

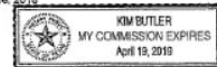
State of: Texas  
County of: Harris

Subscribed and sworn to before me this 28th day of June, 2018

[Signature]

Notary Public: Kim Butler

My Commission expires: April 19, 2019



In accordance with the Contract document, based on on-site observation and the data comprising this application, the Architect certifies to the Owner that to the best of the Architect's knowledge, information and belief the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.....\$

ARCHITECT: \_\_\_\_\_ DATE: \_\_\_\_\_

# Pre Construction Meeting



## Project Schedule

- Start/Finish dates
- **Critical path** items
- Realistic times
- **Impact on park/community functions?**
- Other?

### CHALLENGE DESIGN INNOVATIONS

#### The Woodlands Township- Rob Flemming Adventure Course Construction Schedule

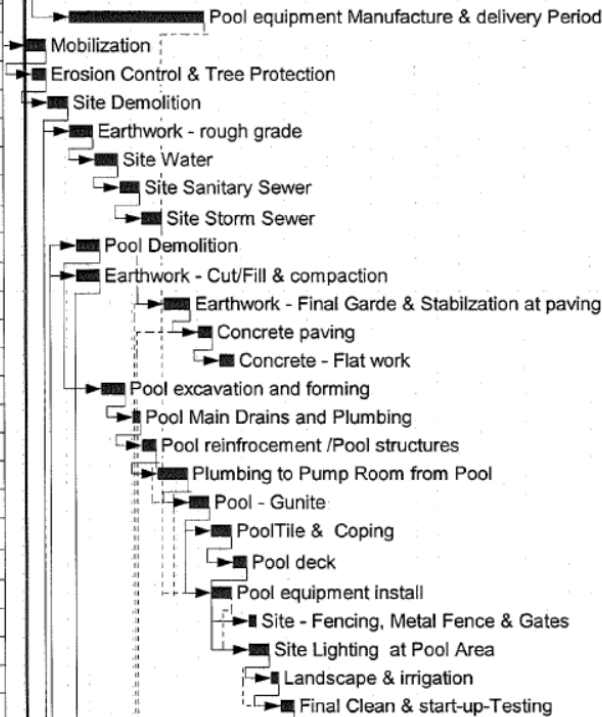
- October 1-7: Week 1
  - Pre-construction meeting (October 2).
  - Establish jobsite and receive materials (poles delivered morning of October 3).
  - Confirm course layout and set all course poles (course, tower, and H-frame poles).
  - Begin installing course transfer platforms.
- October 8-14: Week 2
  - Complete setting course poles.
  - Dig and pour concrete dead men foundations.
  - Continue installing course transfer platforms.
  - Begin tower framing.
- October 15-21: Week 3
  - Continue installing course transfer platforms.
  - Continue tower framing/decking.
  - Install all guy wire systems.
  - Begin installing course elements.
- October 22-28: Week 4
  - Continue installing course transfer platforms.
  - Complete tower framing/decking.
  - Install tower stairs.
  - Complete installing guy wires.
  - Continue installing course elements.
- October 29-November 4: Week 5
  - Continue installing course transfer platforms.
  - Continue installing course elements.
- November 5-11: Week 6
  - Continue installing course transfer platforms.
  - Continue installing course elements.
- November 12-18: Week 7
  - Continue installing course transfer platforms.
  - Continue installing course elements.
- November 19-25: Week 8
  - Thanksgiving Break
- November 26 - December 2: Week 9
  - Complete construction.
  - Address punch list items.
- December 3-9: Week 10
  - Commissioning and Acceptance Inspection (site representatives must be on site and sign)
- January- Level 1 Training.
- February 1- Course Opening.

# Pre Construction Meeting



## Pool & Deck

1065	Pool equipment Manufacture & delivery	30d	30d	19DEC17	31JAN18	60d
1070	Mobilization	5d	5d	05DEC17	11DEC17	1d
1080	Erosion Control & Tree Protection	3d	3d	07DEC17	11DEC17	1d
1090	Site Demolition	5d	5d	12DEC17	18DEC17	1d
1095	Earthwork - rough grade	5d	5d	19DEC17	26DEC17	71d
1100	Site Water	5d	5d	27DEC17	03JAN18	71d
1110	Site Sanitary Sewer	5d	5d	04JAN18	10JAN18	71d
1120	Site Storm Sewer	5d	5d	11JAN18	17JAN18	71d
1140	Pool Demolition	5d	5d	21DEC17	28DEC17	56d
1160	Earthwork - Cut/Fill & compaction	5d	5d	21DEC17	28DEC17	1d
1180	Earthwork - Final Garde & Stabilization	7d	7d	18JAN18	26JAN18	71d
1200	Concrete paving	5d	5d	29JAN18	02FEB18	71d
1210	Concrete - Flat work	5d	5d	05FEB18	09FEB18	71d
1265	Pool excavation and forming	5d	5d	29DEC17	05JAN18	56d
1270	Pool Main Drains and Plumbing	3d	3d	08JAN18	10JAN18	56d
1280	Pool reinforcement /Pool structures	3d	3d	11JAN18	15JAN18	56d
1285	Plumbing to Pump Room from Pool	8d	8d	16JAN18	25JAN18	56d
1290	Pool - Gunite	5d	5d	26JAN18	01FEB18	56d
1310	PoolTile & Coping	5d	5d	02FEB18	08FEB18	56d
1320	Pool deck	3d	3d	09FEB18	13FEB18	56d
1325	Pool equipment install	5d	5d	02FEB18	08FEB18	59d
1390	Site - Fencing, Metal Fence & Gates	3d	3d	14FEB18	16FEB18	66d
1490	Site Lighting at Pool Area	5d	5d	14FEB18	20FEB18	56d
1493	Landscape & irrigation	3d	3d	21FEB18	23FEB18	56d
1495	Final Clean & start-up-Testing	5d	5d	24FEB18	28FEB18	56d



Start date 05DEC17

Finish date 16MAY18

Early bar

Progress bar

# Construction Administration

- Request for Information (RFI)
- Pay Applications
- Change Orders
- Progress meetings
- Production schedule
- Testing
- Daily monitoring





# Construction Administration



## Request for Information (RFI)

- Uncertainty of products, materials, approach
- May suggest a difference material
- Provides for and documents potential changes/communication



P.O. Box 2449  
Cypress, Texas 77410

## REQUEST FOR INFORMATION

RFI #:  
**004**  
Date Sent:  
**1/13/17**  
Project Name:  
**Northshore Park**  
Project No.:

To:  
**Leroy Collins**  
**Burditt**

From:  
**Steve Hill**  
**Hou-scape**

### Question:

During our meeting Wednesday we discussed two issues with the front CMU wall at the Restrooms they are as follows:

- 1) The existing wall has an existing Bond Beam 3 blocks down from the top. Do we need an additional double bond beam as shown on Structural drawing Detail 9/S-2.0. If so this would require additional demo of the existing CMU wall that was not shown on the Demo drawing A0.01 of everything above the 9'-4" height to be removed as the new double bond beam appears to be started at a height of 8'-0".
- 2) The existing height of the wall with or without the new double bond beam is or will be at a height of 9'-4" and the space between that and the bottom of the new roof rafters is only 5'-3 1/2" while Detail C3 on sheet A2.01 shows the height of the Decorative Screen to be 6'-1 1/4" and it will not fit as designed.
- 3) Whether the additional double bond beam is required or not I would suggest that an additional row of blocks be removed so that the top of the CMU wall is at a finished height of 8'-7 1/2" as that would accommodate the Decorative Screen and wood framing as designed.

Please advise

Response:



# Construction Administration



## Pay Applications

- Retainage- 10%
- Tracking project budget
- Net 30 days
- Who reviews the pay application- project manager, consultant, other?

### APPLICATION AND CERTIFICATION FOR PAYMENT

TO OWNER:  
Woodlands Township  
6464 Creekside Forest Drive  
Woodlands, TX 77389  
FROM CONTRACTOR:  
Challenge Design Innovations, Inc.  
PO Box 219  
Pineola, North Carolina 28662

PROJECT:  
Adventure Course at Rob Fleming Park  
C-2018-0382

CERTIFIER:

APPLICATION NO: 5

AIA DOCUMENT G702

PERIOD TO: 11/21/18

CONTRACT DATE: 9/1/18

### CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract.  
Continuation Sheet, AIA Document G703, is attached.

1. ORIGINAL CONTRACT SUM	\$	533,538.08
2. Net change by Change Orders	\$	0.00
3. CONTRACT SUM TO DATE (Line 1 + 2)	\$	533,538.08
4. TOTAL COMPLETED & STORED TO DATE (Column G on G703)	\$	443,066.04
5. RETAINAGE:		
a. 0.1 % of Completed Work (Column D + E on G703)	\$	\$44,506.60
b. 0.1 % of Stored Material (Column F on G703)	\$	\$0.00
Total Retainage (Lines 5a + 5b or Total in Column I of G703)	\$	44,506.60
6. TOTAL EARNED LESS RETAINAGE (Line 4 less Line 5 Total)	\$	400,559.44
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificates)		295,330.46
8. CURRENT PAYMENT DUE	\$	105,228.98
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6)	\$	132,978.64

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Total changes approved in previous months by Owner	0.00	0.00
Total approved this Month	0.00	0.00
TOTALS	\$0.00	\$0.00
NET CHANGES by Change Order	\$0.00	

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents, that all amounts have been paid by the Contractor for Work for which previous Certificates for Payment were issued and payments received from the Owner, and that current payment is due.

CONTRACTOR:

By: Catherine M. Tail

Notary Public:

Subscribed and sworn before me this 19

State of NC

My Commission expires: 10/23/2022

CERTIFIER'S CERTIFICATE FOR PAYMENT

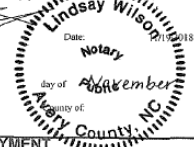
In accordance with the Contract Documents, based on on-site observations and the data comprising the application, the Certifier certifies to the Owner that to the best of the Certifier's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

AMOUNT CERTIFIED: \$

(Attach explanation if amount certified differs from the amount applied. Initial all figures on this Application and on the Continuation Sheet that are changed to conform with the amount certified.)

CERTIFIER:

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein. Issuance, payment and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.



430-190-9000 - 1820-31  
11/21/18  
\$105,228.98 PO # 2018-416

# Construction Administration



## Tracking project budget

	Date	Burditt	Date	Houscape
Contract	4/22/2017	\$286,000.00	11/19/2017	\$2,879,230.06
Change Order 1	1/18/2018	\$6,825.00	12/20/2017	-\$103,421.00
Change Order 2				
Change Order 3			12/28/2017	\$35,120.03
Change Order 4			1/22/2018	\$40,280.00
Change Order 5			3/28/2018	\$9,300.00
Change Order 6				
Change Order 7			3/28/2018	-\$12,077.40
Change Order 8				
Change Order 9			4/10/2018	\$4,945.00
Change Order 10			4/23/2018	\$2,492.50
Change Order 11			5/29/2018	\$1,950.00
Change Order 12			7/1/2018	\$750.00
Change Order 13			7/10/2016	\$4,860.00
Revised Value of Contract	\$3,156,254.19	\$292,825.00		\$2,863,429.19
Net Difference	\$8,975.87			
Payment 1	6/5/2017	\$30,000.00	12/28/2107	\$196,933.23
Payment 2	7/5/2017	\$98,670.00	2/15/2018	\$188,203.52
Payment 3	8/15/2017	\$48,262.50	2/21/2018	\$238,038.59
Payment 4	9/6/2017	\$30,387.50	3/28/2018	\$302,711.63
Payment 5	10/10/2017	\$22,301.52	4/16/2018	\$250,978.50
Payment 6	11/27/2017	\$4,075.00	4/27/2018	\$145,765.42
Payment 7	12/20/2017	\$22,021.69	5/18/2018	\$296,945.90
Payment 8	1/18/2018	\$8,580.00	5/29/2018	\$94,390.96

Misc Expenses		Amount		
Vendor	Service	Amount		
	Fast Signs	Banners	\$432.00	
	Progressive	Whale Sign	\$15,275.00	
	Terracon	Soil Study	\$2,850.00	
	Terracon	Soil Study	\$1,950.00	
	Terracon	Asbestos Study	\$1,750.00	
	Omni	Salavage	\$125.00	
	Omni	Alarm System	\$6,756.79	
	Pool Chairs	Horizon Casual	\$15,112.00	
	Terracon	TA10187	\$2,002.50	
	Centerpoint	Move line	\$350.00	
	Kilgore	Camera Sewer	\$1,604.55	
	First Class Rentals	Temp Bathroom	\$1,275.00	
	Terracon	TA22038	\$1,444.00	
	Uretek	180057	\$25,980.12	
	Burditt	Dog Park	\$3,700.00	
	Terracon	TA32146	\$2,782.50	
	Progressive	Chairs-Guards	\$6,517.00	
	Terracon	TA44742	\$1,670.00	
	Concrete Contractor	Curb Stops	\$705.58	
	Big Tin Barn	Bollards	\$349.95	
	Lowes		\$53.67	
	Lowes		\$41.55	
	Lowes		\$628.54	

Total Paid	\$307,899.67	\$2,723,497.00
Total Payments	\$3,031,396.67	
Total Remaining Value- To Be Paid	\$124,857.52	
Budgeted Contingency	\$311,500.00	
Contingency Remaining	\$169,993.31	

WRC during Outage  
MoCo Permit

# Construction Administration



## Change Orders

- Who can sign/limits?
- Added days?
- How to determine correct values?
- If there is a change does it impact other aspects of the scope/value?

### CHANGE ORDER AIA DOCUMENT G701

Distribution to:  
OWNER  
ARCHITECT  
General Contractor  
FIELD  
OTHER

X
X

PROJECT:  
Bear Branch Park  
Pool Renovations Ph. I & III

CHANGE ORDER NUMBER: 005

INITIATION DATE: 1/26/2018

PROJECT NO: C-2017-0419

TO (Contractor): Hou-Scape, Inc.  
P.O. Box 2449  
Cypress, Texas 77355

CONTRACT FOR: Sitework, Landscape & Irrigation

CONTRACT DATE: 12/5/2017 (NTP)

You are directed to make the following changes in this Contract:

#### ADD

Hou-Scape, Inc. proposes to add Storm Sewer Pipe at West end of project, and repairs made to storm sanitary @ entrance by Research Forest Drive

1	12" HDPE for Culvert (40LF) (Materials & Labor)	\$2,500.00
1	Repair to Sanitary Storm Drain (Materials & Labor)	\$2,900.00
1	4" Isolation Valve, 4" x 2" Tapping Saddle, & 100 LF 2" PVC (This will tie into bathrooms & runs new waterline around new Maint Bldg to tie into Pool Facility Bldg.)	\$3,900.00
<b>Total</b>		<b>\$9,300.00</b>

Not valid until signed by both the Owner and Architect.

Signature of the Contractor indicates his agreement herewith, including any adjustment in the contract Sum or Contract Time.

The original (Contract Sum) (Guaranteed Maximum Cost) was.....  
Net change by previously authorized Change Orders.....  
The (Contract Sum) (Guaranteed Maximum Cost) prior to this Change Order was.....  
The (Contract Sum) (Guaranteed Maximum Cost) will be (increased) (decreased) (unchanged).....  
by this Change Order.....  
The new (Contract Sum) (Guaranteed Maximum Cost) including this Change Order will be.....  
The Contract Time will be (increased) (decreased) (unchanged) by.....  
The Date of Substantial Completion as of the date of this Change Order therefore is.....

\$2,879,080.04  
(\$28,020.94)  
\$2,851,059.10  
increased  
\$9,300.00  
\$2,860,359.10  
6/22/2018

General Contractor  
Hou-Scape, Inc.  
Address  
P.O. Box 2449  
Cypress, Texas 77410  
Date: 1/26/2018

Architect  
Burditt Consultants  
Address  
310 Longmire Road  
Conroe, Texas 77384  
Date:

Owner  
The Woodlands Township  
Address  
2801 Technology Forest Blvd  
The Woodlands, Texas 77381  
Date: 1/26/2018

# Construction Administration



## Testing

- Payment for testing
- **Selection of Testing agency**
- Testing soils, cement, pressure, adherence to specifications
- Who pays?
- What happens when test do not meet specifications?

Project Number: 97171209

Material Information				Sample Information						
Specified Strength	3,000 psi @	28 days		Sample Date:	04/05/18	Sample Time:	1115			
Mix ID:	2215	001		Sampled By:	Jose Jatem Montero					
Supplier:	Allied Concrete			Weather Conditions:	Sunny					
Batch Time:	1009	Plant:	NA	Accumulative Yards:	10/10	Batch Size (cy):	10			
Truck No.:	Jesus	Ticket No.:	1013960	Placement Method:	Direct Discharge					
Field Test Data				Water Added Before (gal):	0					
	Test	Result	Specification	Water Added After (gal):	0					
Slump (in):		6		Sample Location:	Same as placement					
Air Content (%):		3.5		Placement Location:	New Spread Footings; Refer to Attached Drawing.					
Concrete Temp. (F):		72								
Ambient Temp. (F):		69								
Plastic Unit Wt. (pcf):										
Yield (Cu. Yds.):										
Laboratory Test Data										
Set No.	Specimen ID	Avg Diam. (in)	Area (sq in)	Date Received	Date Tested	Age at Test (days)	Maximum Load (lbs)	Compressive Strength (psi)	Fracture Type	Tested By
1	A	6.00	28.27	04/07/18	04/12/18	7	82,080	2,900	2	JAD
1	B	6.00	28.27	04/07/18	04/12/18	7	84,110	2,970	2	JAD
							Average (7 days)	2,940		
1	C	6.00	28.27	04/07/18	05/03/18	28				
1	D	6.00	28.27	04/07/18	05/03/18	28				
Initial Cure: Outside				Final Cure: Water Storage Tank						
Comments: Not tested for plastic unit weight.										

# Construction Administration



## Progress Meetings

- Daily, weekly, bi-weekly
- Whose in attendance?
- Communication
- Tracking- progress, RFI's
- Meeting minutes
- Deliverables for next meeting

**BURDITT** Consultants LLC

LAND | PLACE STUDIO – Connecting People to Place

ARCHITECTURE + LANDSCAPE ARCHITECTURE + URBAN DESIGN

### Meeting Minutes

Project: Bear Branch Ph 1 and Ph 3  
Meeting: Progress Meeting  
Location: Bear Branch Park  
Date: December 13, 2017

Prepared by: Ben Mengden  
Next Scheduled Meeting: January 3, 2018

#### Attendees:

<input checked="" type="checkbox"/>	Chris Nunes	Woodlands Township
<input checked="" type="checkbox"/>	John McGowan	Woodlands Township
<input checked="" type="checkbox"/>	Pamela Woods	Woodlands Township
<input checked="" type="checkbox"/>	Karl Shaw	Woodlands Township
<input type="checkbox"/>	Michelle Betcher	Woodlands Township
<input checked="" type="checkbox"/>	Kim Butler	Hou-Scape Construction
<input checked="" type="checkbox"/>	Bill Hilbun	Hou-Scape Construction
<input checked="" type="checkbox"/>	Eric Geppelt	Burditt
<input checked="" type="checkbox"/>	Courtney Brinegar	Burditt
<input checked="" type="checkbox"/>	Ben Mengden	Burditt

The following are items were discussed as recorded by Burditt Consultants and represent the minutes of the meeting. Comments, errors, and/or omissions to these minutes shall be made in writing to Burditt Consultants and/or reported at the next regularly scheduled meeting.

- Pamela Woods will be handling wayfinding and project information signage for park patrons.
- Burditt to email Hou-Scape the permit for the existing renovation.
- Hou-Scape to check with team concerning water shut-off schedule and give Woodlands appropriate notice. Mechanical Building perimeter outline to be determined on 12/14/17 and possible water meter and irrigation boxes relocation.
- General construction schedule and 3-week outlook of work requested from Hou-Scape. Allow for designated response time (for RFI's and Submittals) from design team in schedule.
- Construction fencing to be completed surrounding construction area.
- Pay-app procedure was discussed with understanding of appropriate review time.



# Daily Monitoring

- Positive communication with contractor
- Friendly but not friends
- Communication project status with Board/City Management
- **Take LOTS OF PICTURES**
- Other????



# Punch Lists

## Punch List-

- All consultants
- All impacted staff
- The more eyes the better
- **Take lots of photos**
- Refer back to the plans and standards
- Include all of the little stuff- labeling electrical panels!



# Punch List/Acceptance of Work



## Substantial Completion

- *“refers to a stage of a construction or building project or a designated portion of the project that is sufficiently complete, in accordance with the construction contract documents, so that the owner may use or occupy the building project or designated portion thereof for the intended purpose.”*
- Warranty clock starts this day!!!



# Punch List/Acceptance of Work



#	List	ISSUE	9/19/2018	10-032018
1	Burditt	Missing fire rated plywood on walls for Elec Room 109 at Maintenance Building. All penetrations should be fire caulked/sealed. According to plans only the ceiling is to have fire rated ,walls are to be painted See A1.04	Houscape claims the roof of the room is the only area to be fire rated. Please provide documentation	Houscape to review applicable codes
2	Burditt	Installation of steel boot that was designed to address the cracking at the connection area in timber framing. Houscape is to address this issue immediately without delay.	Accepted	
3	Burditt	Missing windows in doors at rooms 107A and 108B at Maintenance Building	Accepted	
4	Burditt	Missing cool deck coating over entire existing flatwork per finish plan A1.04 and specifications Do not know where you are talking about. All cool deck is in. Addendum #2 : 2.11 The existing slab at the pool house and the new slab surrounding the new pool will receive a cementitious product that provides a non-slip surface. Basis of Design: ACD Acrylic Spray Texture System. Color to be approved by supplier's full range of options. See attachment for product description. Reference website for more information: <a href="http://www.advancedconcretedesigns.com/services/acrylic-spray-texture">http://www.advancedconcretedesigns.com/services/acrylic-spray-texture</a> . A.104 shows the entire deck including the existing to be completed.	Accepted	
5	Burditt	Missing fence at Maintenance Building	Accepted	
6	Burditt	Missing plywood header for overhead door per detail14/A4.02 The door company installed the correct header for the overhead door but we will install plywood anyway on Wednesday.	Power Beam Installed. Provide verification from Overhead Garage Door	Need letter/pictures from Overhead
7	Burditt	Confirmation installation of French-drain system at pump pit	Need Pictures	Need pictures
8	Burditt	Confirmation water stop at pump pit	Need Pictures	Need pictures
9	Burditt	Missing concrete polishing system at service desk per detail3/AS1.03 and related keyed note 033.055 This was confusing since the spec was for floors. We will do this on Wednesday	In progress	Concrete is cracking. We will monitor, however Houscape is still responsible
10	Burditt	Gap/Opening in roof above shower areas No clarification provided. Needs to be completed.	Need Pictures	Need pictures/verification

# Final Acceptance



- Warranties
- As Built
- Release of Payments
- Release of Bonds
- Issuance of Final Acceptance Letter





# Grand Opening!!!!!!



REMEMBER-  
**ALWAYS GIVE  
THE BOARD  
THE CREDIT!!!!**



# Thank you!!!!

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Chris Nunes, Ph.D., CPRE  
Director of Parks and Recreation  
The Woodlands Township  
2801 Technology Forest Blvd  
The Woodlands, Texas 77381  
281-210-3906  
[cnunes@thewoodlandstownship-tx.gov](mailto:cnunes@thewoodlandstownship-tx.gov)

