



FOLLOWING HOBBIT TRAILS:

A STAKEHOLDER DRIVEN APPROACH TO SCHOOL YARD DESIGN

[The theme of the playground is to be Pacific Northwest, DIY] and 'a little Hobbit'.

-A Stakeholder

BY GIFFIN G. GLASTONBURY



Hi there, thanks for reading this document!

My project is about some hobbit trails I followed over the course of 6 months. My name is Giffin and this is a stakeholder driven approach to school yard design. This booklet includes, background context, my design process, my proposed design and some reflection and discussion.

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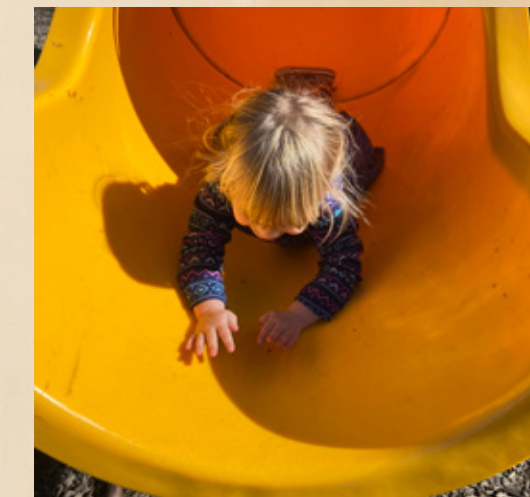
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I. *INSPIRATION:* Waldorf + Child Development

I am a father and throughout my master's program I would typically spend part of my weekend with Juna, my now 4-year-old daughter. We would go to playgrounds or parks on Saturdays. Many of which are designed for little people the size of hobbits. This is how my interest in playground and campus design started.

Back in 2019, before I started the masters, I participated in a Waldorf teacher training course, here, in Eugene at the private Waldorf school. In this picture of my cohort I happen to be barefoot, like a hobbit. Waldorf pedagogy focuses on experiential learning, imagination, and creativity. The arts are woven into each academic discipline and the pace of the education is not rushed.



“ THE NEED FOR IMAGINATION, A SENSE OF TRUTH AND A FEELING OF RESPONSIBILITY-
THESE ARE THE THREE FORCES WHICH ARE THE VERY NERVE OF EDUCATION.”
-RUDOLPH STEINER

I. DESIGN THEMES: School Yard Design at the Village School

To be clear this project is about school yard design at the Village School. Merrily and Cara are friends of mine and happen to be stakeholders of my project.

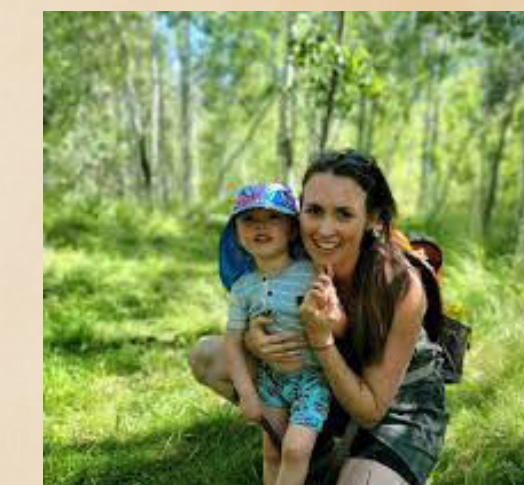
Throughout the process I engaged with both, And I visited Merrily's 5th grade classroom, in April. Cara originally asked the executive director to work with me on this project. Cara is a good family friend. Charlie, Cara's child and Juna are also close playmates.

CHARLIE + JUNA + WATERMELON



Merrily Elestad- 4th-5th Grade Teacher

"The playground is basically a mudpit"
-Merrily



Cara Bryton -Staff Wellness Coordinator

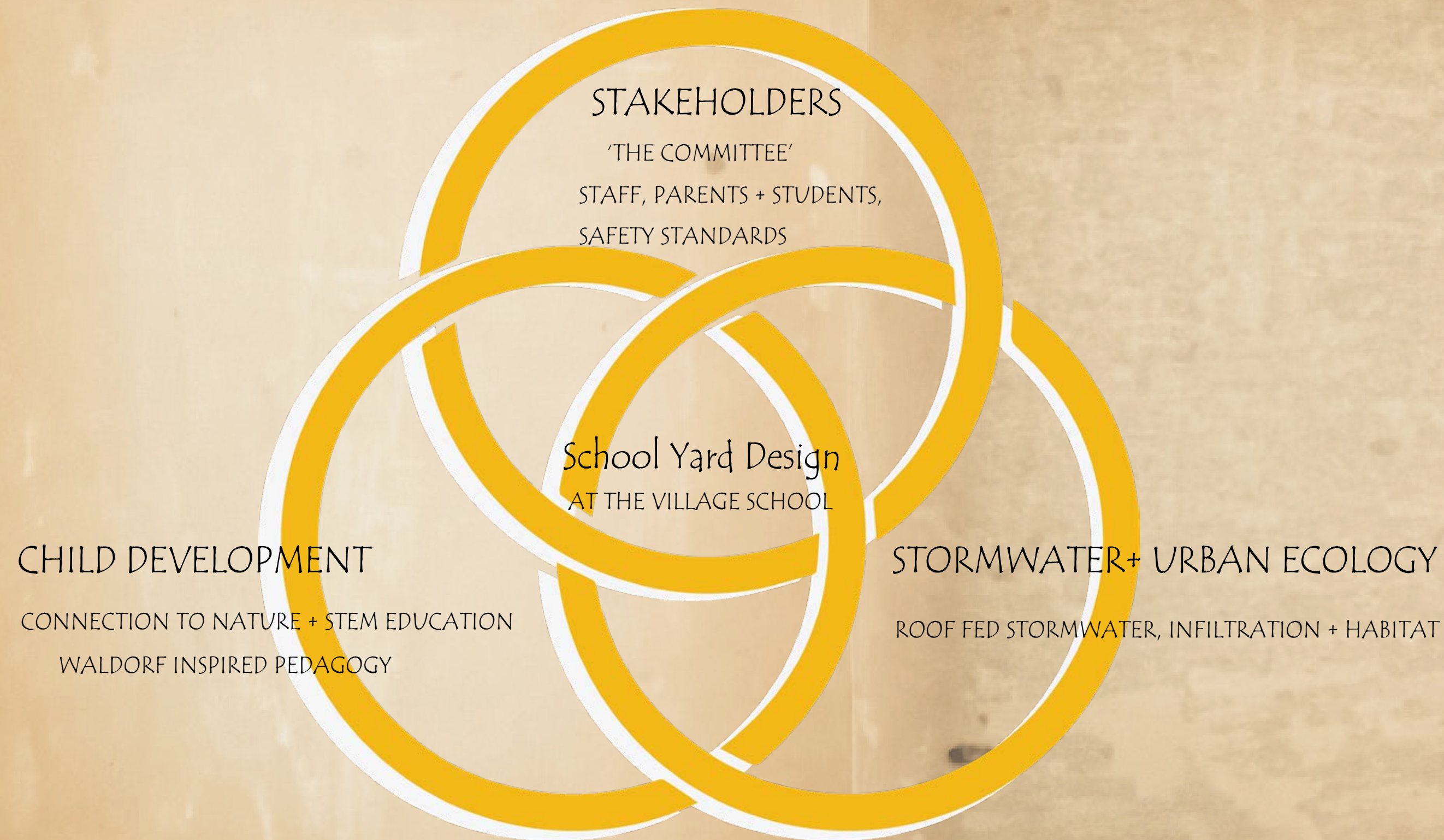
"The older kids can get bored"
-Cara

"WATER MELON IS GOOD, I LIKE PLAYGROUNDS."
-JUNA + CHARLIE

I integrated stake holders into the design process for a few reasons: One, because they were even willing to meet with me. And two, because they would provide me with some level of accountability and feedback throughout this process.

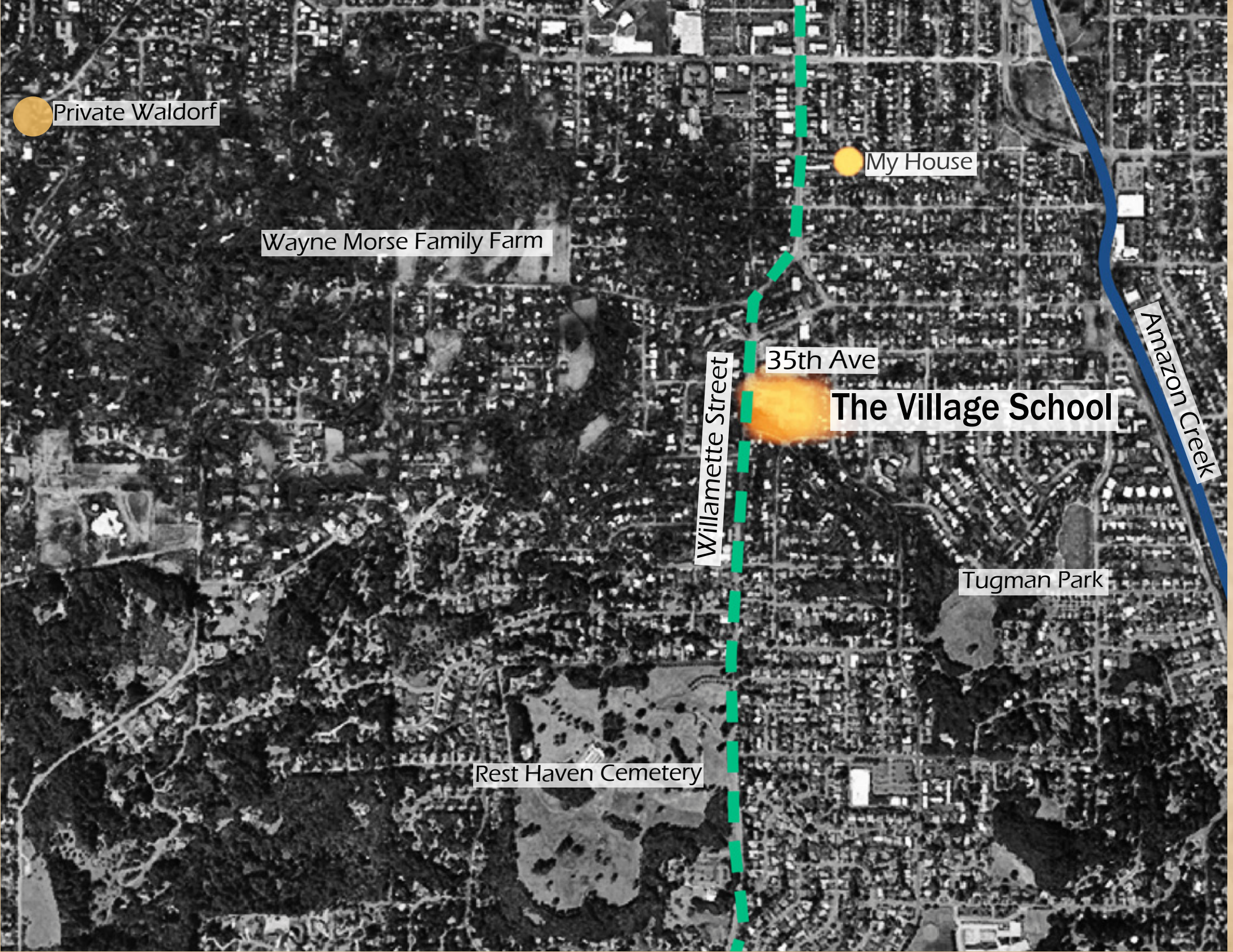
Stormwater and urban ecology were also integral themes in guiding my design. The stakeholders of the school include ‘the committee’, staff, parents and students, This includes other guiding forces of society like social values, litigation culture and safety standards. Child development includes the importance of a connection to nature, STEM education and Waldorf pedagogy. It is important that children have a chance to connect with nature and experience, unprogrammed imaginative time in the outdoors. The use of natural materials can also help to foster this connection to nature. Imaginative play cannot be fully predetermined or defined, so a fully developed playground like what you often see at a city park would not work for the school.

I. DESIGN THEMES: Context and Introduction



I. SITE CONTEXT: Middle Earth AKA: South East Eugene

There is here, in Middle Earth, plenty of hobbits. To be clear: there is a private Waldorf school, which offers a more exclusive Waldorf education, in the friendly neighborhood, top left. This is where I did that teacher training with Merrily. The village school, my project site is located along Willamette Street in southeast Eugene. It is a public charter school part of the 4-j school district. The Village School is not a Waldorf school, it is a 'Waldorf inspired wholistic school.'



VO

Here's the neighborhood, the cross streets are 35th avenue and Willamette Street. The school sits on roughly 4.5 acres with 225 hobbits enrolled. The play yard in total, is about 34,000 sqft it's not that big.

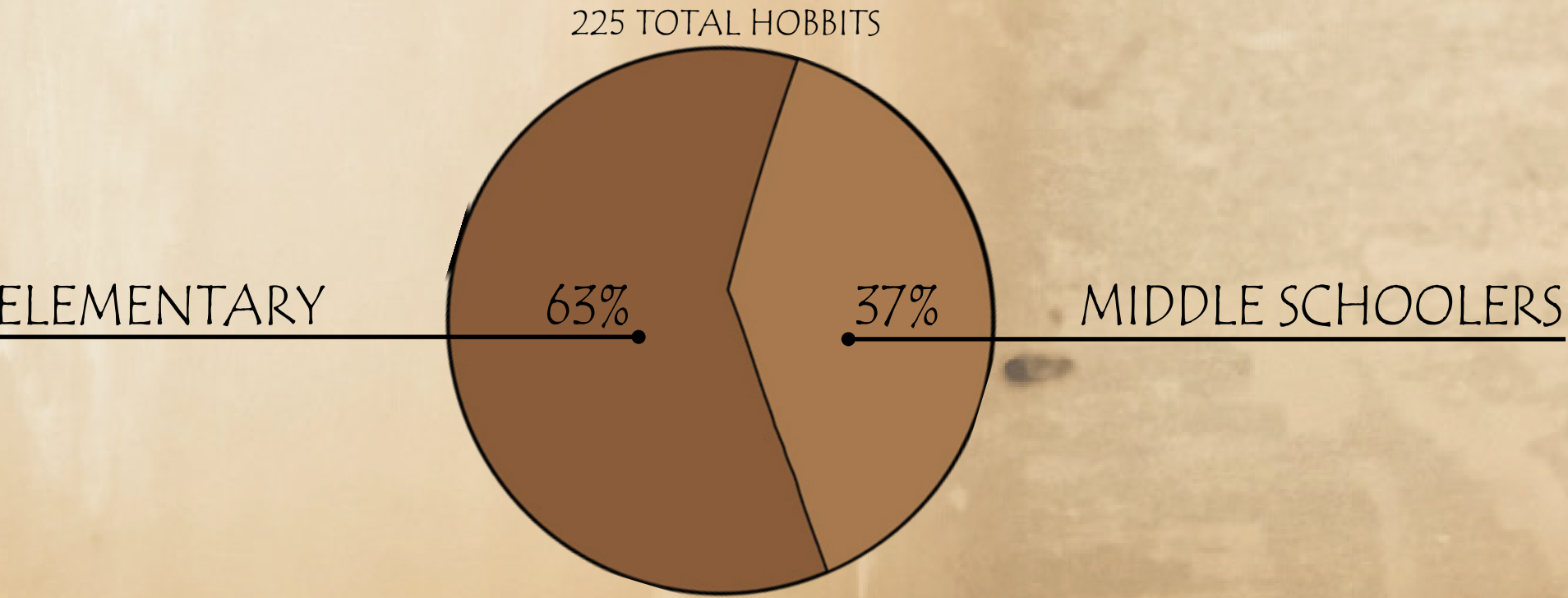
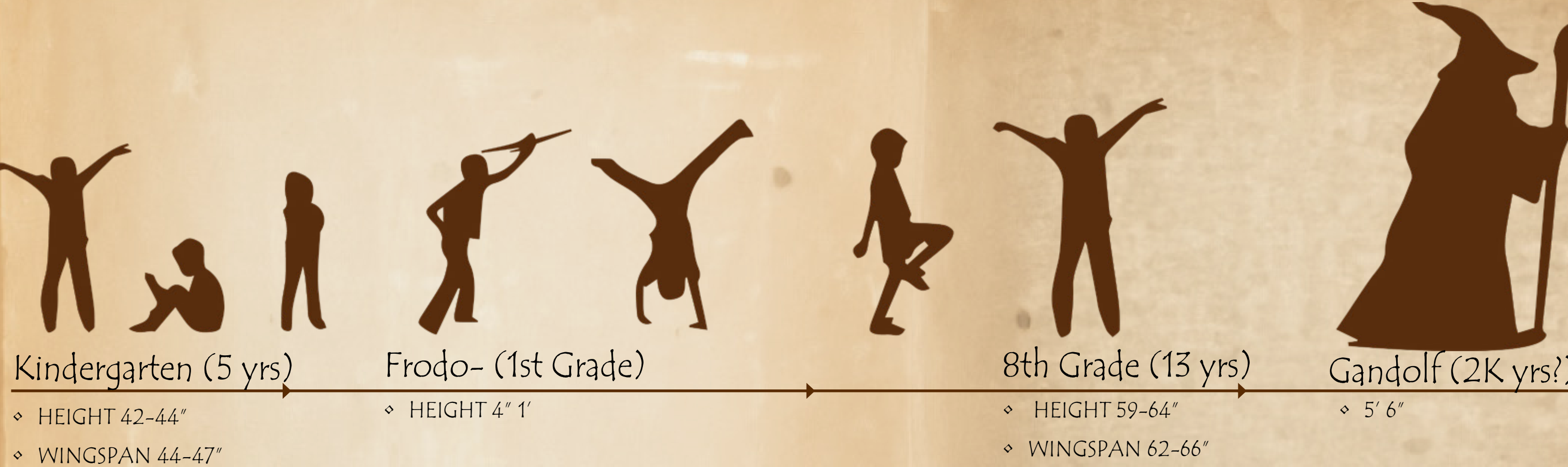
“THE NUMBER OF PEDESTRIANS COMING TO AND FROM SCHOOL VARIES WITH THE SEASON.
AN ESTIMATED MINIMUM 25 KIDS WALK TO SCHOOL PER DAY.”
-ANDREW PEARA, EXECUTIVE DIRECTOR

I. *SITE CONTEXT:* The Shire AKA: The Village School

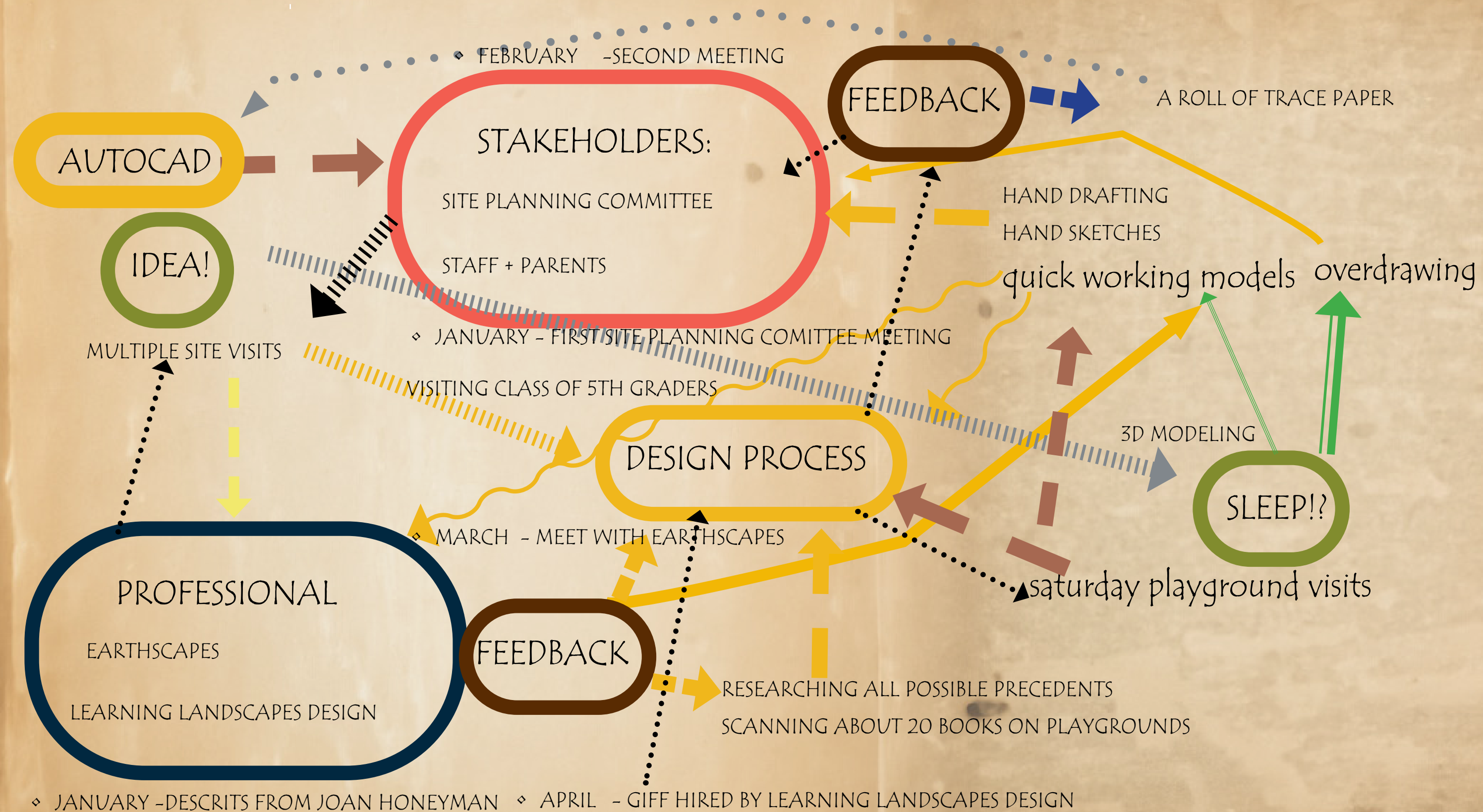


It is important to know that the Village School serves kindergarten through 8th grade. Of the 225 Hobbits about 63% are Elementary students 37% are Middle schoolers.

I. SITE CONTEXT: Hobbit Sizes



My workflow was based around consultation with the 'school's committee'. The committee is a group of founding board members and other stakeholders like parents and few staff members. My process looked like this: After I presented the committee with material and received feedback, I would then ponder, draw, contemplate, talk to other stake holders and seek advice from professionals academics and stakeholders. It was a fluid process, and it was not linear at all. This is the best way I could explain my workflow.



I. ABOUT HOBBITS: Professional Hobbit Experts

The use of natural materials was important, so I asked a leader of the industry how they do it! This is Carlin Mantynen from Earthscapes, a cutting-edge playground design firm, which specializes in built structures. She gave me an informational interview about their materials and standards. I learned from our conversation they use a combination of marine grade plywood, cedar and composite wood. Wood is exclusively stained and a maintenance plan of sanding and restaining is important. Black locust (robinia psduedoacacia) is a preferred log for its longevity.

WOOD SPECIES

Accoya® Acetylated Radiata pine

Accoya® is an FSC Certified modified timber known for its durability, sustainability, and versatility. Through a process of acetylation, the wood becomes exceptionally stable and fungi- and termite-resistant. More details about Accoya® can be found at <https://www.accoya.com/>

- Applications
- Sculpture cladding
 - Tower and bridge decking and cladding

Lifespan (years)*:

Above grade

50+

Below grade

25+

Classified: Moderately Durable

Alaskan Yellow Cedar *Cupressus Nootkatensis*

Alaskan Yellow Cedar (AYC) is native to the west coast of North America. It is only used above grade and is resistant to fungi and termites. AYC Glulam is a predictable engineered product, that offers a refined look, superior structural performance, and curved applications.

- Applications
- Tower beams
 - Framing and cladding
 - Glulam
 - Swing posts

Lifespan (years)*:

Above grade

30+

Classified: Durable

Marine-Grade Plywood

Marine-grade plywood forms the bones of our play sculptures and gives us the flexibility to build complex shapes. It is used as a substructure for cladding. Our plywood is FSC certified.

- Applications:
- Structural ribs for sculptures

Lifespan (years)*:

Above grade

25+

Classified: Durable



Carlin Mantynen



Giffin

ME!

I. *ABOUT HOBBITS:* Structural Details

Carlin helped me to understand some of the safety lingo and playground terminology. For example, a crawl space is considered a 'horizontal opening'. I asked her if a log jam was considered a balance beam. She helped to clear some of the mud. Stay tuned for the answers! A plastic tube just isn't as fun as these crawl throughs.

SAFETY

HORIZONTAL OPENINGS (CRAWL THROUGHS)



**Smallest opening that allows head and torso to pass through is 10" in ASTM

Learning Landscapes Design, a Portland based firm recruited me. I've been working for them part time since April. We specialize in early childhood and natural playgrounds. Learning landscapes Design has some nice precedents for the concept of "loose parts". Loose parts are materials designed for the school yard that allow kids to build, explore and manipulate objects. They support STEM play. The children can create a temporary fort or rearrange small spools for teatime. Another example, from Moss St a UO program. Juna, has assembled the planks and is now balancing on top.

“THERE ARE NOT ENOUGH OPPORTUNITIES FOR IMAGINATIVE PLAY.”
-CARA BRYTON

I. ABOUT HOBBITS:

JUNA @ MOSS ST. (UO)



'Loose Parts' Support: STEM Learning + Child Directed Play



PATTERN PLAY PANELS 1970



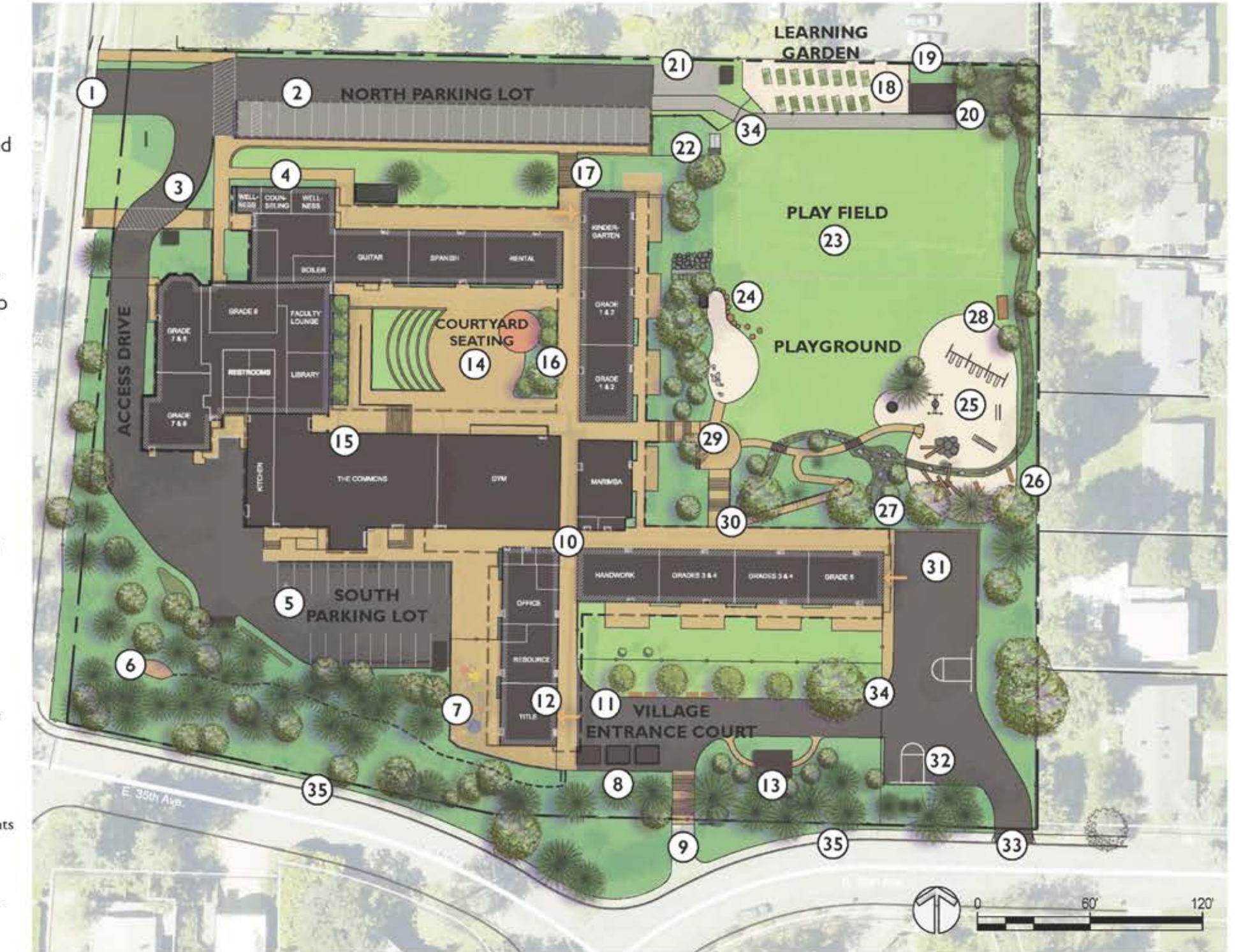
The existing master plan for the Village School, presents a variety of goals and desired outcomes including but not limited to: an expanded school yard with nature play elements including a roof-fed dry creek, an ADA ramp, a playfield, and an expanded fort and sandpit area.



THE VILLAGE SCHOOL 2020 MASTER PLAN

The Village School Master Plan includes ideas and visions collected from faculty, staff, families and students over the period of one year. The plan attempts to balance the need for play, safety, community building, and art while maximizing its ability to function. The final concept represents what is most feasible and desired given the numerous constraints of the site. As a 20 year vision for the school the proposed improvements are intended to occur in phases and as resources become available.

- 1 WILLAMETTE ST ACCESS**
 - Vehicle access for staff, faculty and visitors attending special events.
 - Improve safety by narrowing entrance to 2 lanes, providing a separate pedestrian walkway, and adjusting entrance to access drive.
 - Add plantings along entry and new sign.
 - Remove 3-4 visitor parking spaces.
- 2 NORTH PARKING LOT**
 - Improve safety by widening drive aisle, flipping orientation of parking spaces, and providing sidewalk for pedestrians.
 - Provides additional 3 parking spaces overall on north side of building for staff and events.
 - Requires 3-7 ft. retaining wall on south side of parking.
 - If feasible, include solar panels on covered structure over parking.
- 3 ACCESS DRIVE TO SOUTH PARKING LOT**
 - Add keypad controlled gate to limit access to staff and service vehicles only.
 - Add pedestrian crosswalk.
 - Adjust orientation to fit within property lines.
 - Widen to 20 ft. to better meet code requirements. Low retaining wall may be required at narrowest point.
- 4 ACCESSIBLE ROUTES**
 - Assure that all routes providing access to the school from accessible parking spaces meet requirements of the Americans with Disabilities Act (ADA).
 - Incorporate ADA guidelines in the design and planning of all new improvements throughout the site.
- 5 SOUTH PARKING LOT**
 - Expand and reorient parking to provide additional 3 spaces on the south side of the building for teachers, staff, and special events (18 total).
 - Add low retaining wall as necessary to protect trees on hillside.
 - Remove parking adjacent to loading dock to improve safety.
 - Relocate storage buildings and dumpsters.
 - Catch & treat stormwater at the south side in swales or raingardens.
 - Replace and expand entrances to the Commons and Gym.
 - Provide clear accessible route to the Office and Commons.
- 6 READING NOOK**
 - Develop path along hillside to small leveled opening with minimal seating to allow for small groups to gather, study, and read on sunny days.



- 7 SENSORY COURTYARD**
 - Create an enclosed courtyard filled with bright, colorful, and fun sensory activities that assist with development of motor skills like coordination, balance, and spatial awareness.
- 8 EXPANDED BIKE PARKING**
 - Space provided for future expansion if needed in the future.
- 9 NEW STAIRCASE & SIGN**
 - Develop a new staircase east of current stairs that enter into the Village Entrance Court. Staircase will be shorter, wider, and more accessible at this location.
 - Coordinate with City to determine whether a new welcome sign can be placed in the right-of-way at this location, adjacent to the fence.
- 10 BREEZEWAY SKYLIGHTS**
 - Provide skylights in the darkest areas along breezeways.

I. EXISTING CONDITIONS: New Courtyard, New Swale

At the first committee meeting I found out about their new paved courtyard. It happens to be a large, mostly non-permeable surface- which per city code requirements caused them to construct a large stormwater infiltration swale. That was not part of their original plan! The new swale has no outlet, so it is a full infiltration swale.

The school yard soil is a silty clay loam with 20-40% clay. The infiltration rate is slower on this kind of heavier soil, so the swale is sized larger for this reason.



THE VILLAGE SCHOOL 2020 MASTER PLAN

The Village School Master Plan includes ideas and visions collected from faculty, staff, families and students over the period of one year. The plan attempts to balance the need for play, safety, community building, and art while maximizing its ability to function. The final concept represents what is most feasible and desired given the numerous constraints of the site. As a 20 year vision for the school the proposed improvements are intended to occur in phases and as resources become available.

1 WILLAMETTE ACCESSIBLE ROUTES

- Vehicle access for staff, faculty and visitors attending special events.
- Improve safety by narrowing entrance to 2 lanes, providing a separate



New Infiltration Swale

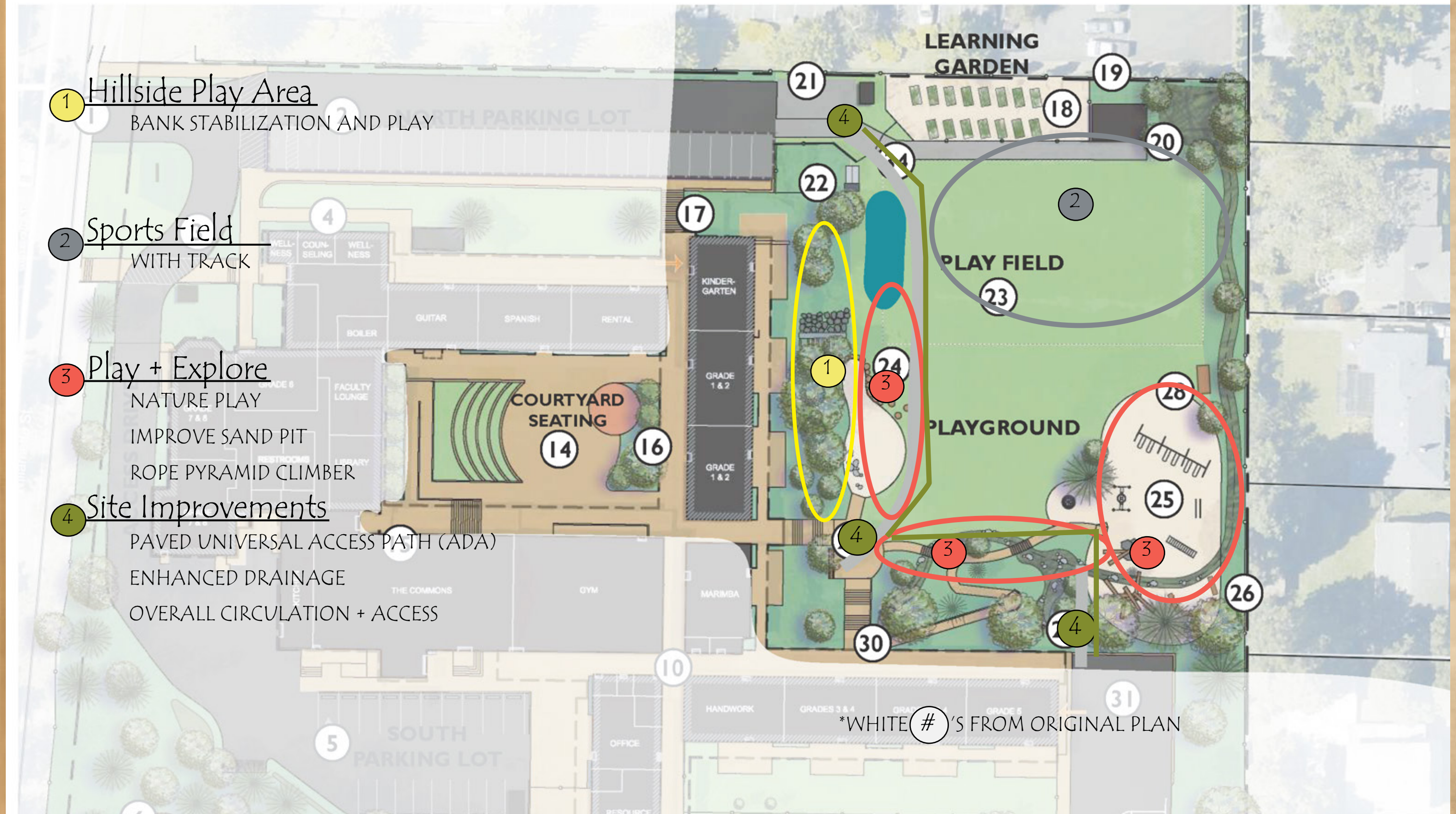
of current stairs that enter into the Village
be shorter, wider, and more accessible at this
mine whether a new welcome sign can be placed
tion, adjacent to the fence.

I. EXISTING CONDITIONS: Time To Rethink

My design goals were to come up with new concepts for the hillside play area amongst other things the plan did not address which are:

- Expanding and improving the sports field with a track.
- Increasing physical and nature play opportunities and improving the sand pit.
- Overall access into and around the school yard
- To increase drainage

Throughout my project I will refer to this area as a school yard. It's not just a playground, but an open area for play, it's a multifunctional, outdoor learning landscape.



This is a closer look at the hillside play area. This glossy privet hedge divides the space with the classrooms on one side and the school yard on the other. In yellow I am highlighting those hobbit holes which are throughout. There are black oaks established along this hillside. Here is a smaller one with some English ivy underneath. The brown represents wood chips, which are always sliding downhill. With hobbit trails in white.

I. EXISTING CONDITIONS: Hobbit Trails Causing Hillside Erosion!



I. *EXISTING CONDITIONS:* Hobbits Must Play!

The sandpit is surrounded by soggy grass and bare earth. The edge between the sand pit and the grass is very blurry, making it hard to contain the sand over time. The natural turf here fails quickly under high traffic and wet conditions.



I. EXISTING CONDITIONS: A Look Around the Site

You can see the desire passages along the Hillside Play Area and the glossy privet hedge with the sand pit on the other side (1). The entry point,(2), is often torn up grass. Below (3) is the underutilized corner between the the stairs where the committee would like to put the ADA ramp. Note the Ivy. Observe how the play fort (4) has earth building up the side of the walls. And the large gap underneath the slide (5). These are signs of erosion.

HILLSIDE PLAY AREA



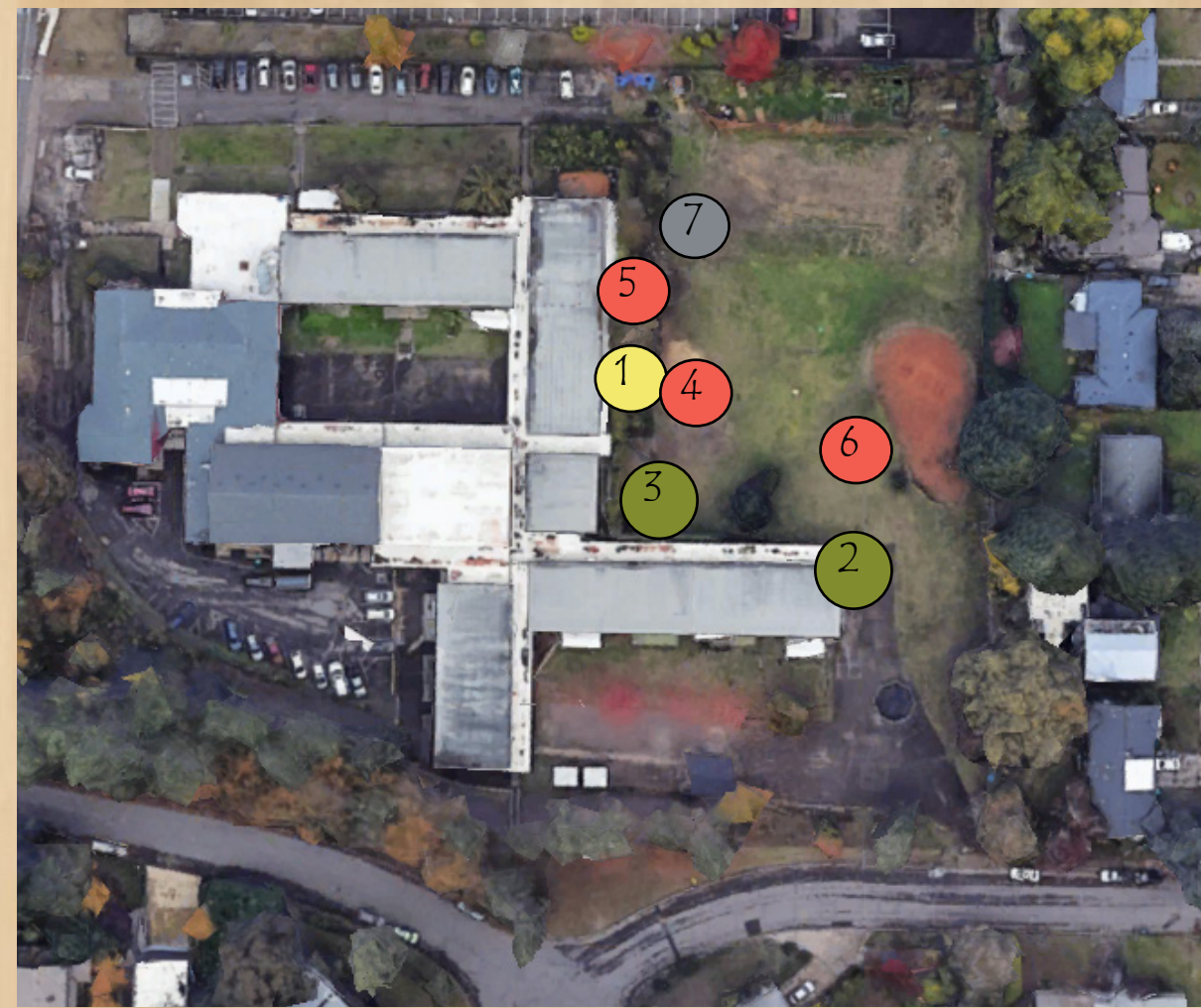
ACCESS/ENTRY



EXISTING PLAY FEATURES



GOOGLE EARTH 10/22



EXISTING SWALE



PROCESS SECTION II.

In January, I had my first meeting with the committee, then again in February. I also had occasional staff one-on-ones and spent an hour classroom session with Merrily's 5th grade class. The ADA ramp is an ongoing project which through my firm I will continue to advance so it can be built soon, but first I need to graduate.

II. STAKEHOLDER ENGAGEMENT: AN ONGOING PROCESS

ACADEMIC ENGAGEMENT:

◇ <u>JANUARY</u>	◇ <u>FEBRUARY</u>	◇ <u>MARCH</u>	◇ <u>APRIL</u>	◇ <u>JUNE</u>
FIRST COMMITTEE MEETING	SECOND COMMITTEE MEETING	MEET WITH EARTHSCAPES	VISIT MERRILY'S 5TH GRADE CLASS	FINAL PRESENTATION

6 MONTHS AGO — — — — — → CALLS WITH MERRILY & CARA. EMAILS WITH ANDY — — — — — → **NOW!** → FUTURE

<u>PROFESSIONAL ENGAGEMENT:</u>	◇ <u>APRIL</u>	◇ <u>JULY</u>
	GIFF HIRED AND STARTS WORKING FOR LEARNING LANDSCAPES DESIGN.	TAKE ADA RAMP TO 100% CD (GIFF AS PROJECT MANAGER)

The brown blob on the left is the existing sandpit and the area on the right the woodchips. The orangish color represents approximately 40% sloped terrain. The yellowish color is an eco-lawn, it is a more gently sloped 'non-irrigated natural turf'. This sloped terrain represents a design challenge. Hobbits bolt out of the classroom doors at the top of the slope indicated by the green arrows, and head down to the yard.

II. ANALYSIS: Existing Conditions



"WE REALLY NEED UNIVERSAL ACCESS DOWN TO THE PLAYGROUND."

ANDREW PEARA, EXECUTIVE DIRECTOR

- CLASSROOM EXITS/PLAY ENTRY
- ENTRY / ACCESS POINTS
- DRAINAGE DIRECTION
- INFILTRATION SWALES

ECOLAWN ~ 5-7% SLOPE OR LESS

SAND + WOOD MULCH PLAY AREAS

~ 40% SLOPE OR MORE

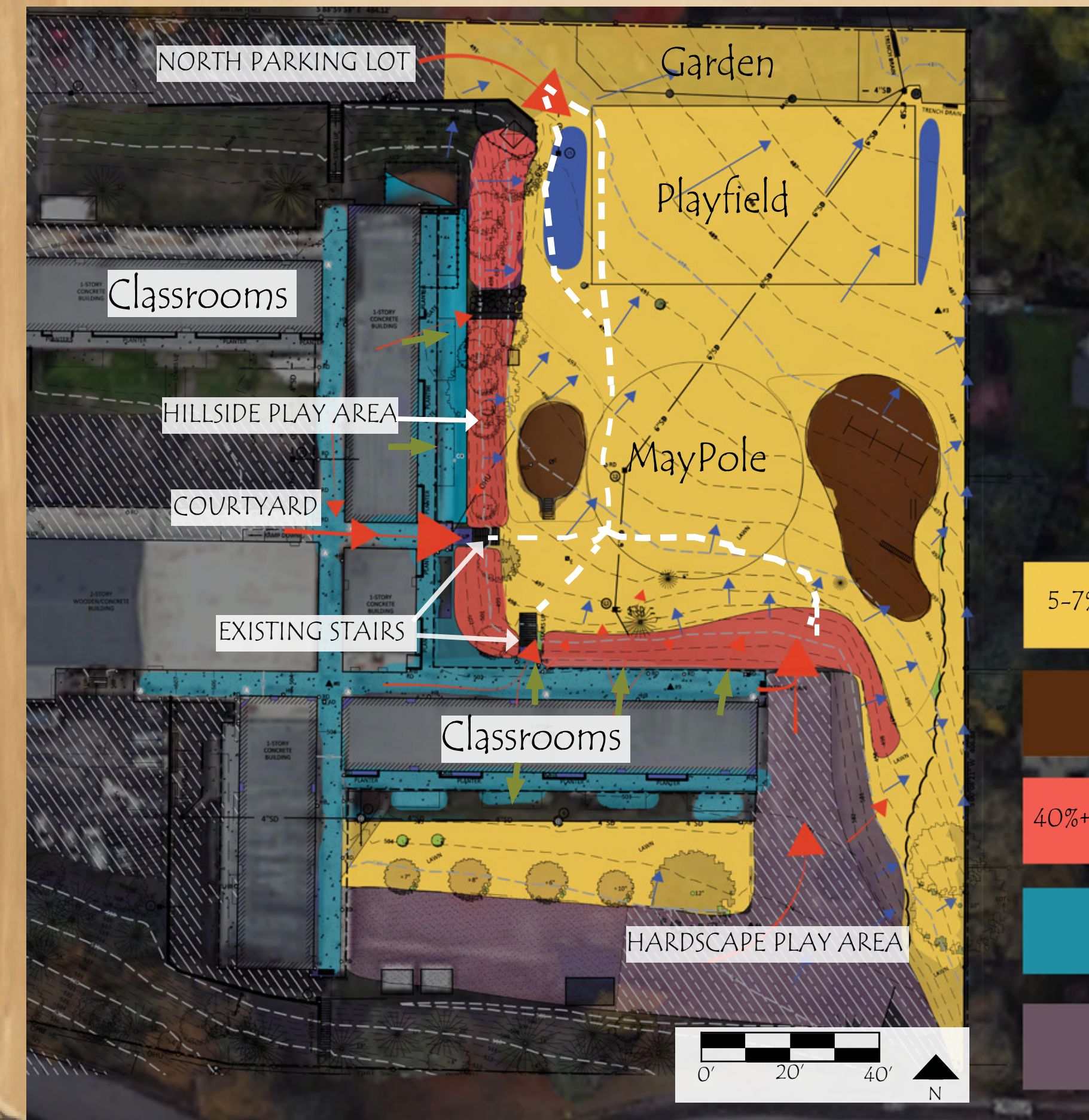
OUTDOOR COVERED WALKWAYS

HARDSCAPE PLAY AREA

The circulation concept connects the main entry points: which are from the north parking lot, the existing stairs, and from the hardscape play area. Without an existing path, the ecolawn succumbs to all the hobbit feet. In wet conditions, the area is soggy, and the lawn is torn up. This is especially true for the orange-colored sloped areas. There are currently two swales flanking the playfield. Stakeholders informed me that the new larger swale on the left is taking up a lot of important real estate. Yet the benefits are not felt. For example, the kids are fenced out from the swale so the plants can become established. Perhaps, in the future boulder steppers could allow for some minor exploration of this swale area, but in the meantime it's fenced off and the kids have to stay out.

“THERE IS GROWING SWALE ANIMOSITY”
-A STAKEHOLDER

II. ANALYSIS: Existing Conditions



“WE REALLY NEED UNIVERSAL ACCESS DOWN TO THE PLAYGROUND.”

ANDREW PEARA, EXECUTIVE DIRECTOR

- CLASSROOM EXITS/PLAY ENTRY
- ENTRY / ACCESS POINTS
- DRAINAGE DIRECTION
- INFILTRATION SWALES
- CIRCULATION CONCEPTS

ECOLAWN~5-7% SLOPE OR LESS

SAND + WOOD MULCH PLAY AREAS

~ 40% SLOPE OR MORE

OUTDOOR COVERED WALKWAYS

HARDSCAPE PLAY AREA

I started out with a goal to focus on playground design but the broader issues of circulation and access required my attention. After this initial meeting, my design workflow was to hone in on the ADA ramp concept and circulation. I worked iteratively to advance a variety of concepts affecting the school yard.



The design goals were clarified at the first meeting.

I also asked about material precedents and themes. This is when a stakeholder suggested a hobbit theme. I agree the materials of the shire- earthen mounds, lush vegetation, and structures for small people- the size of hobbits-goes well with logs and basalt boulders. Time was spent thinking about how to incorporate the hobbit theme. This was something I wrestled with for a while.

[THE THEME OF THE PLAYGROUND IS TO BE PACIFIC NORTHWEST, DIY AND
“A LITTLE HOBBIT.”
-A STAKEHOLDER

II. DESIGN GOALS: Themes + Materials

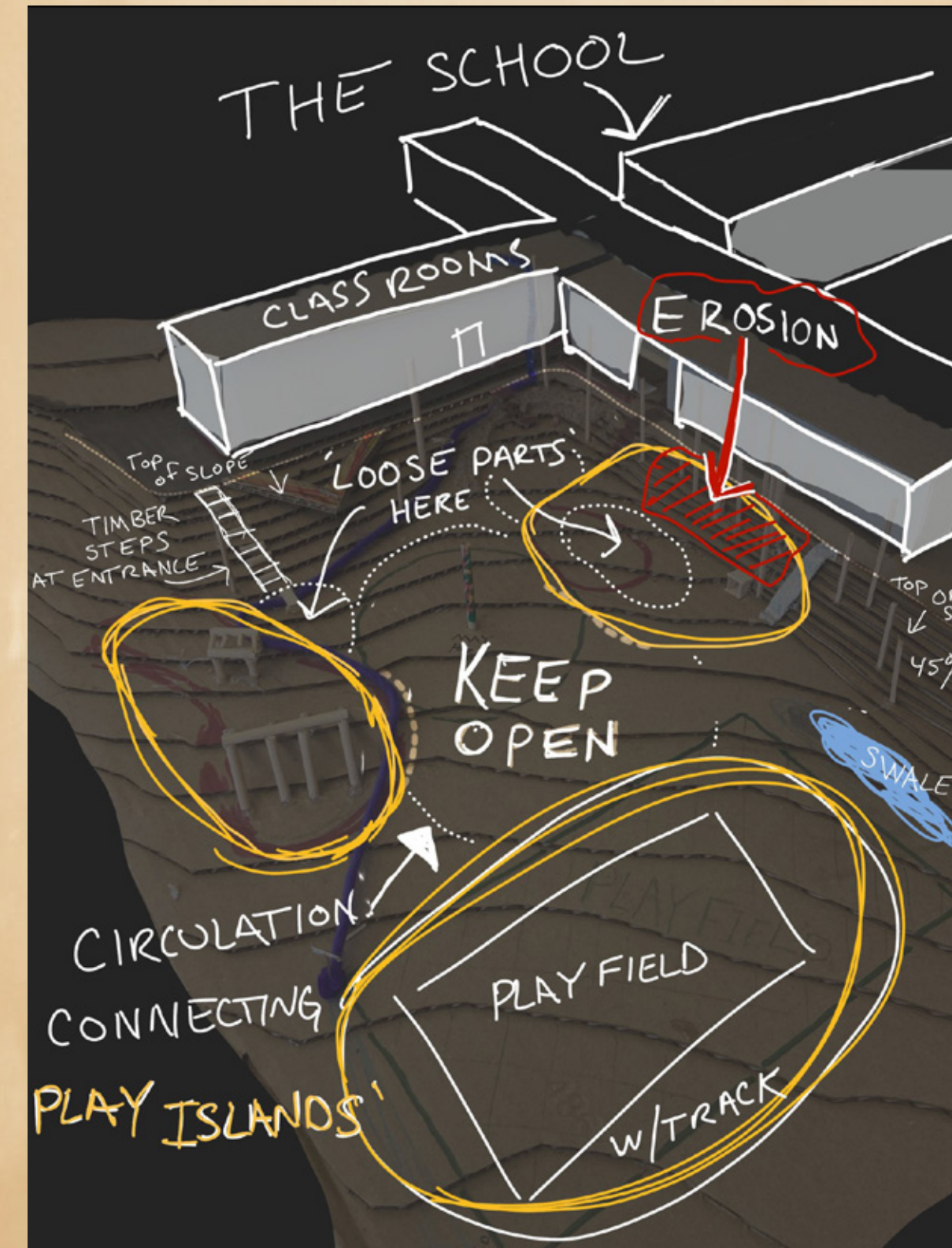
- ◇ CREATE PRIMARY CIRCULATION
- ◇ STABILIZE HILLSIDE AND ALLOW FOR PLAY
- ◇ INTEGRATE A SPORTS TRACK(s)
- ◇ DESIGN FOR WATER PLAY OPPORTUNITIES
- ◇ CONSIDER ALTERNATIVE SWALE CONCEPTS
- ◇ IMPROVE DRAINAGE
- ◇ NATURE PLAY

Material Precedents:



Over the course of three weeks I used working models to help get my design juices flowing. In the model shown, the yellow areas represent play islands that need to be connected with circulation. Some of the committee's design goals that I took to heart were to push the *developments* to the edge of the playground, and keep the center open, yet to allow for creative play without defining the space too much. A simple precedent of boulders on gravel was liked by the committee. The boulders are an organic play form with a looser form of programming. I like the concept of these boulders because they don't over develop the play yard. The children can interpret the boulders how they wish.

II. WORKFLOW: Conceptual Working Model



"WE SHOULDN'T ALWAYS DICTATE HOW THE STUDENTS PLAY"

"A LARGER TRACK AROUND THE ENTIRE PLAYGROUND WOULD BE GREAT, BUT WE DON'T WANT THE BIGGER KIDS TO RUN OVER THE LITTLER ONES"

"THE SITE NEEDS TO KEEP THAT OPEN FEELING"

"TRY TO KEEP THE CENTER OPEN AND THE DEVELOPMENTS TO THE EDGES"

Precedent:



II. WORKFLOW: Design Constraints

Here is an early Hillside structure concept based off the precedent shown.

Following along with the hobbit theme I thought it was important that the children have a chance to experience an enclosure. Yet allowing the Hobbits to pass underneath the structure posed a design challenge of not contributing to the erosion. Another way to stabilize the hillside is to add vegetation underneath the structure.

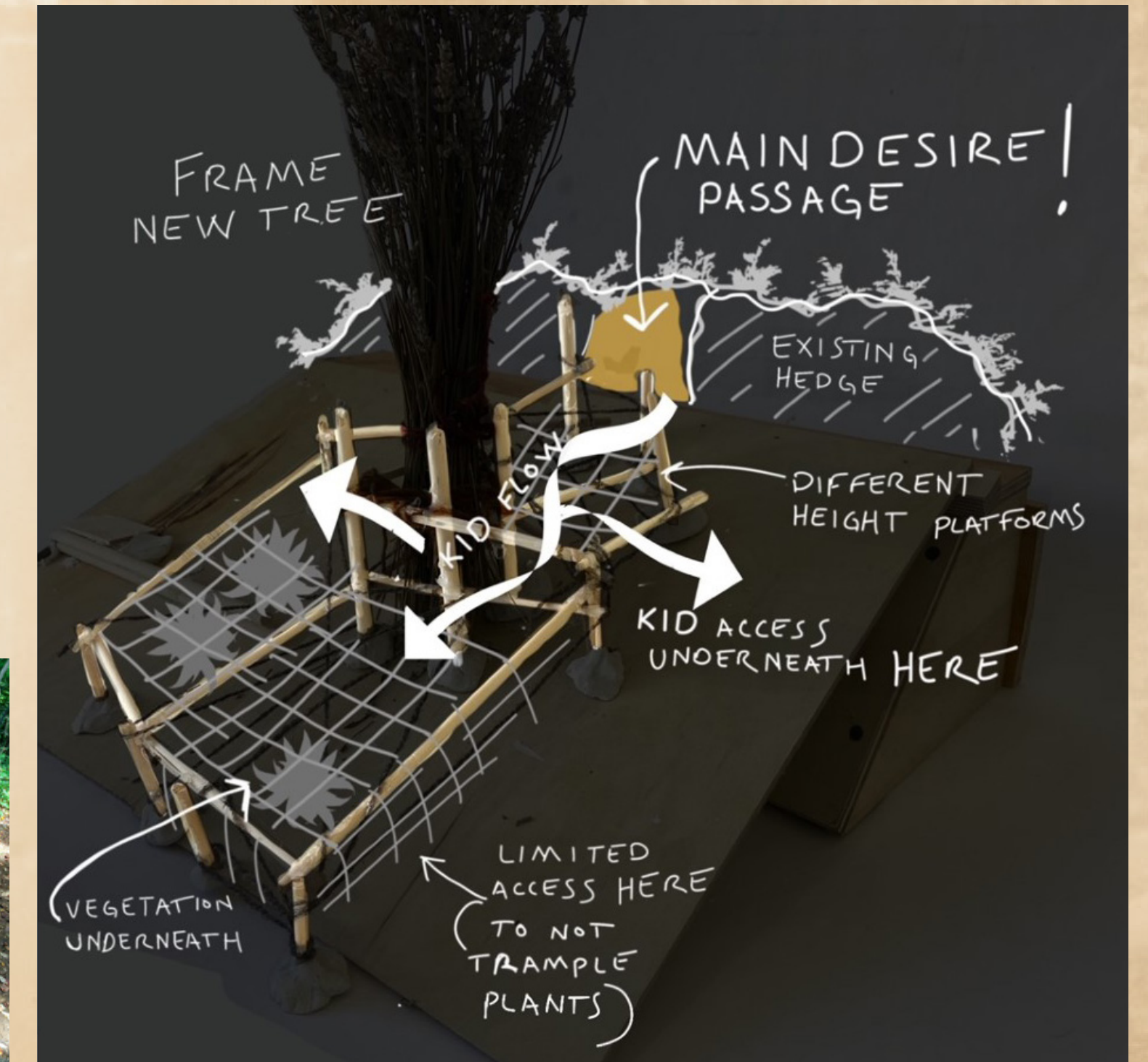
♦ STABILIZE HILLSIDE

♦ MAINTAIN NATURAL GROUND COVER

♦ ALLOW FOR PLAY

♦ 4' FALL ALLOWANCE

Precedent:

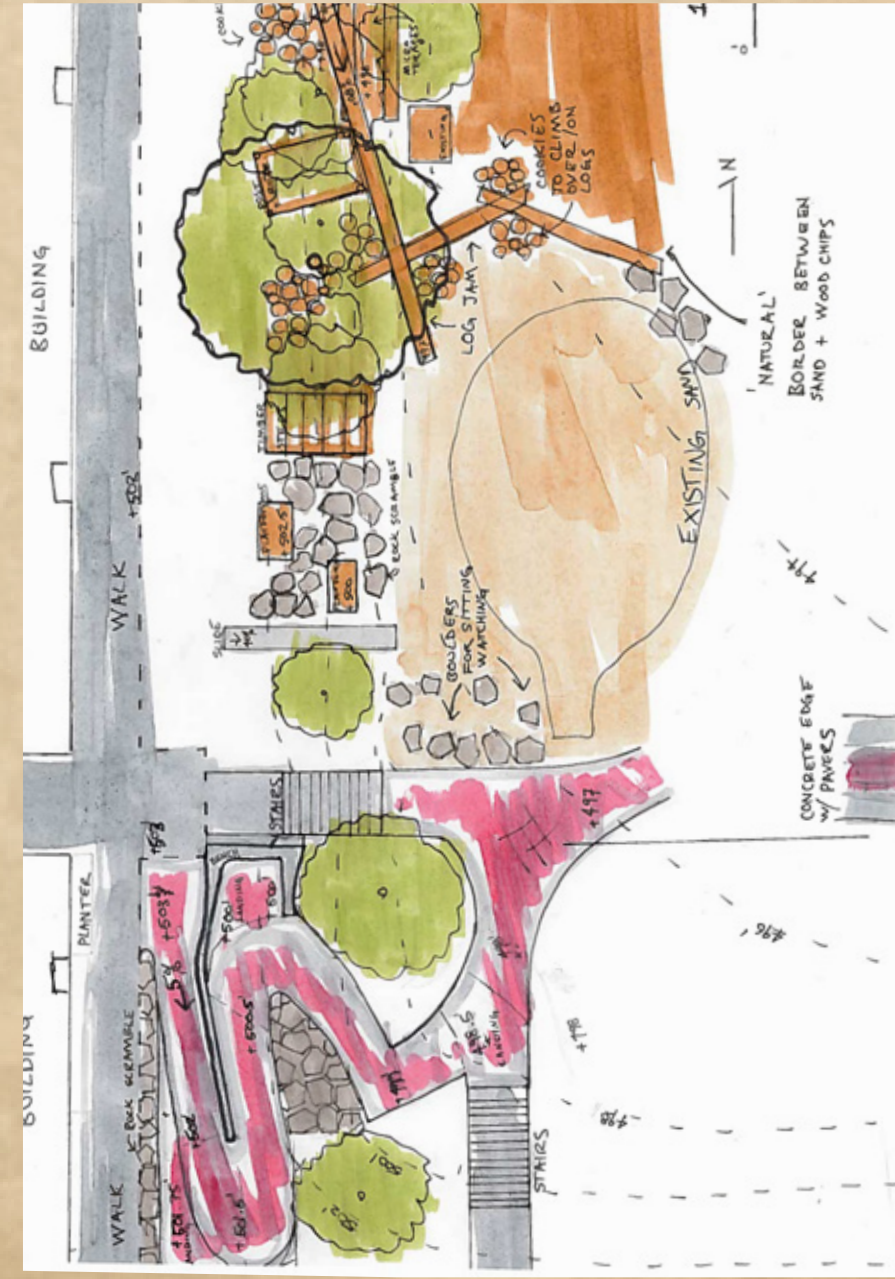
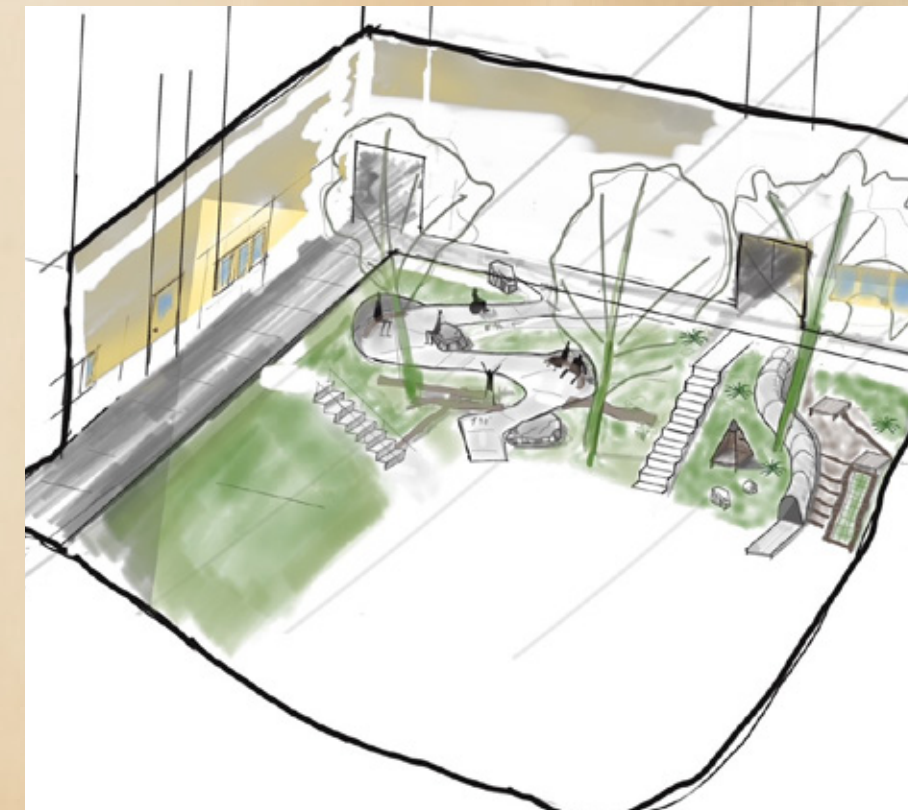


II. WORKFLOW: ADA Ramp Concept

The Brooklyn botanical gardens ADA ramp on the left is one of my favorite ramp precedents. It was my initial inspiration. However, I suggested a less brutalist, more playful, and a much smaller ramp. The ramp is situated in between the existing stairs and space is limited. I proposed adding a boulder scramble in place of a plain concrete retaining wall. I showed these initial versions of the ramp to my academic advisor Joan Honeyman, and she kindly reminded me I forgot landings every 30'. So, I went back and added landings which were integrated as forms of play or hang out spots for the kids.

DESIGN AN ADA RAMP THAT IS "CURVY AND A FUN PLACE FOR KIDS TO PLAY OR HANG OUT ON".

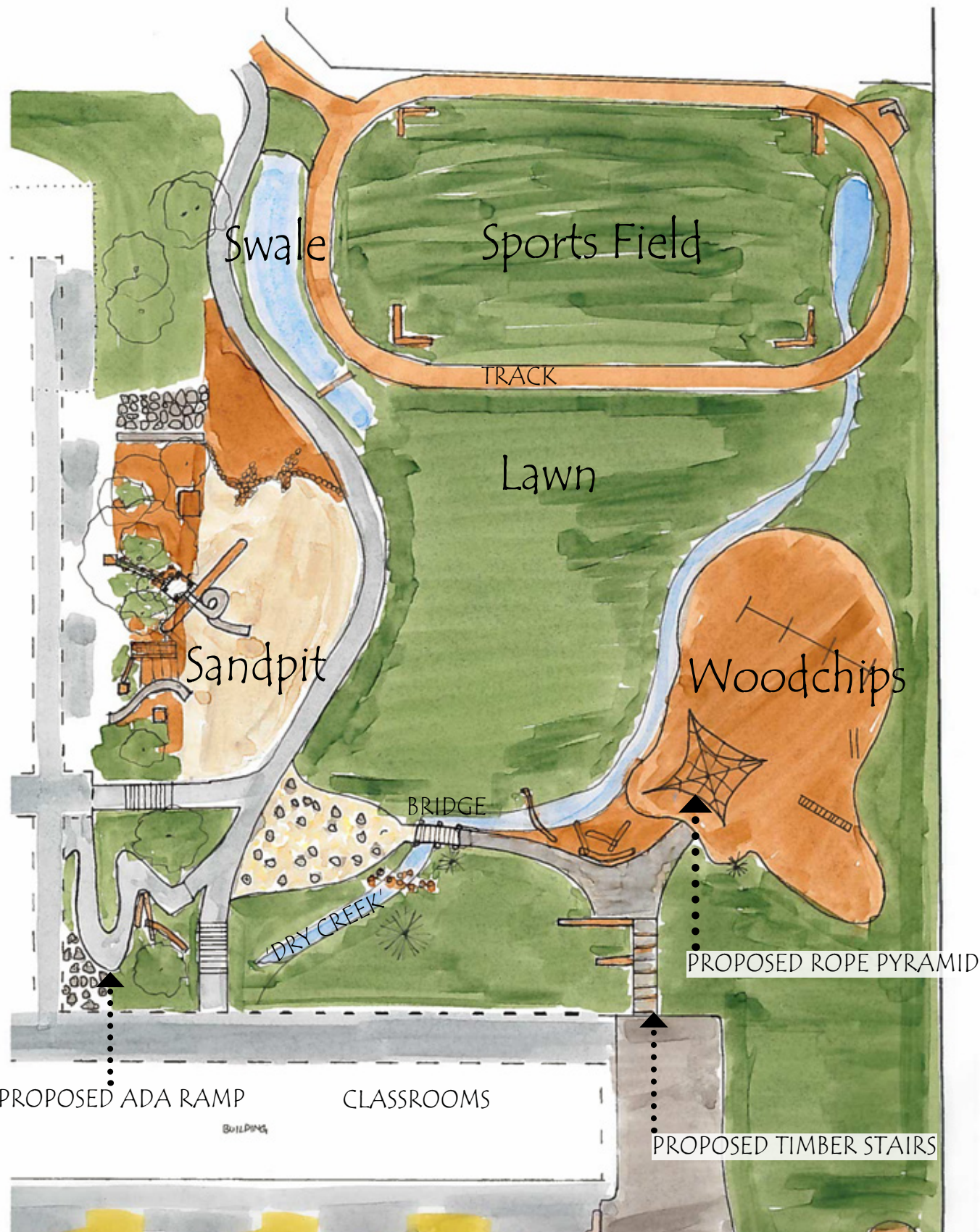
-A STAKEHOLDER



BROOKLYN BOTANICAL GARDENS- WEISS/MANFREDI

II. WORKFLOW: Rope Pyramid Placement (Option 1)

At the second meeting I brought the committee four overall site concepts. Here are the first two. I did four initial iterations, because I was told beforehand that the committee was going to place a rope pyramid climbing structure, on either the left side or the right side of the school yard. So, I did two iterations for each possible location, to test out swales, circulation, and track layout for example. You can see I have timber steps and the access ramp in each plan. This plan on the left shows a swale running next to the rope pyramid. In the iteration on the right, I tested out the placement of a larger sports track around the field. I also was timid at first to propose a fully developed circulation. Keep in mind the area has no circulation now, just eco lawn.



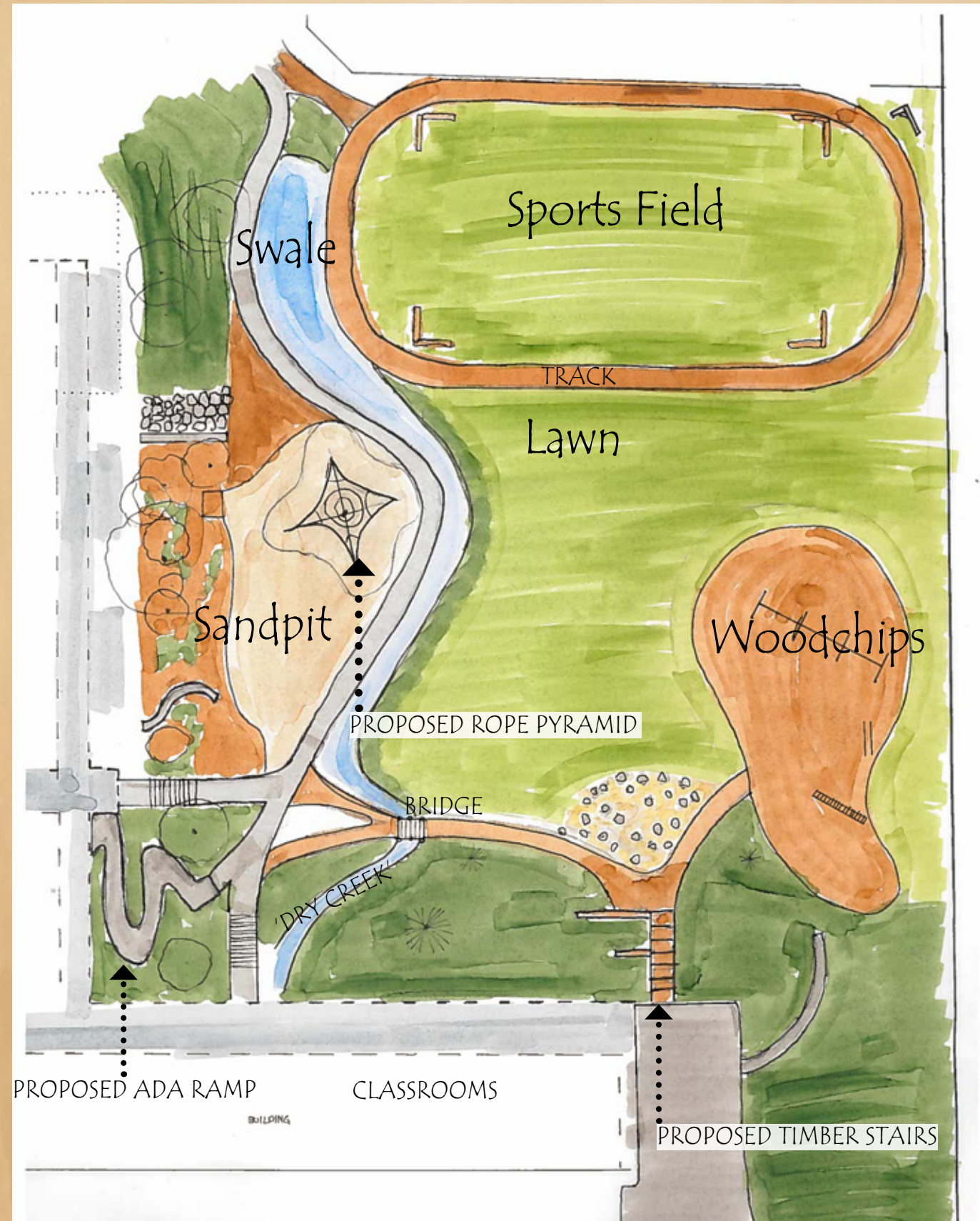
II.

WORKFLOW:

Rope Pyramid Placement (Option 2)

In these iterations, the rope pyramid climber is on the left-hand side. I started to frame the sand pit on one side, but I was not yet certain it needed to be fully enclosed. What was great about me presenting this rough material is the committee and I had rich conversations and could talk things through.

“ THE SMALL BRIDGE IS CUTE ”
-A STAKEHOLDER



- To maintain that Open Feeling
- Not to overdevelop the playground
- increase, drainage
- Expand the sports field potentially as an artificial turf surface
- Allow for water play + nature play
- Enclose the sandpit with a path
- To connect play islands
- Provide for accessibility

DESIRED OUTCOMES:

- ◇ MAINTAIN 'OPEN FEELING'
- ◇ INCREASE DRAINAGE
- ◇ EXPAND SPORTS FIELD
- ◇ ALLOW FOR WATER PLAY
- ◇ NATURE PLAY
- ◇ BETTER SANDPIT
- ◇ CONNECT PLAY ISLANDS
- ◇ ADA ACCESSIBILITY



II.

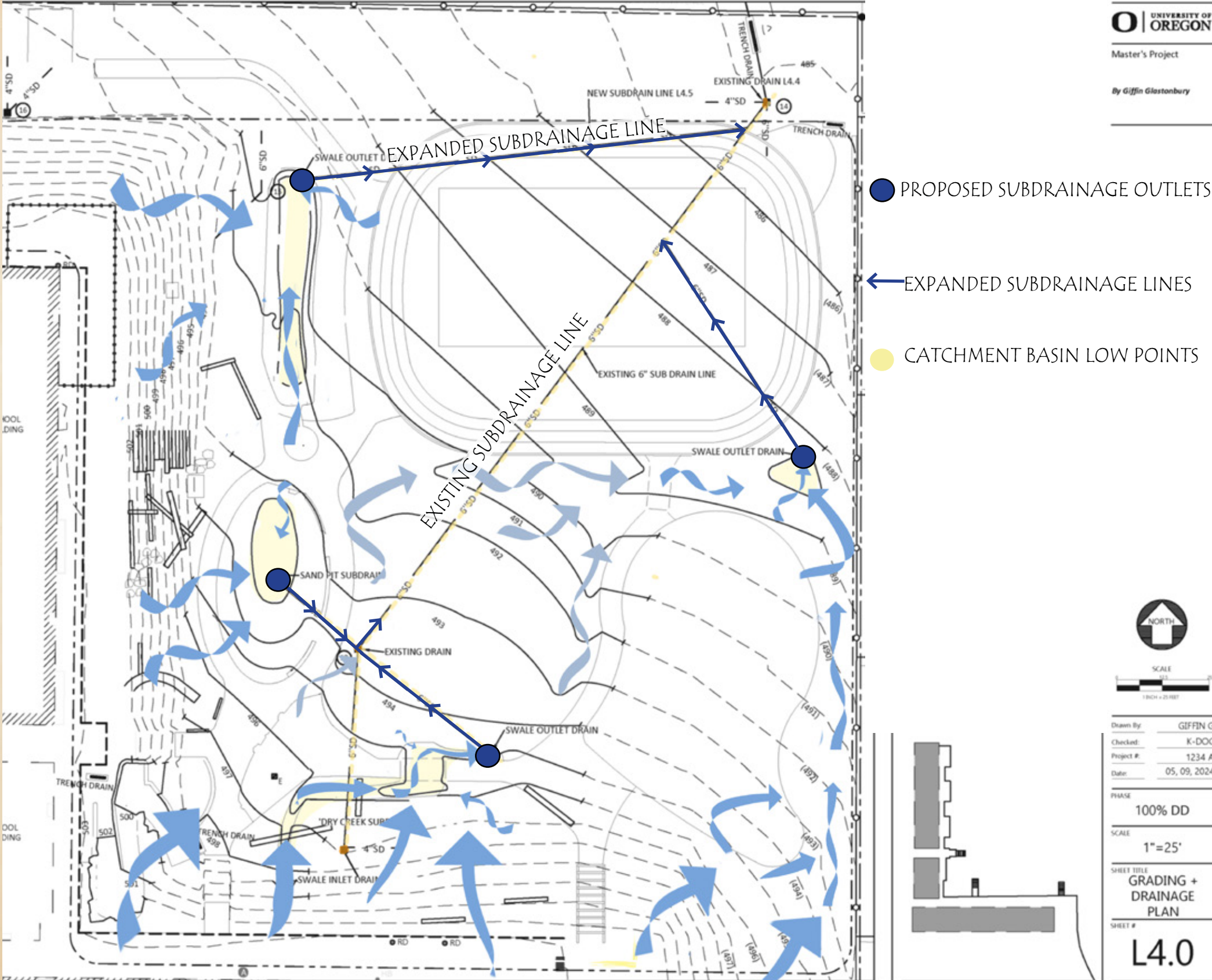
I propose a significant expansion of the existing subdrainage system. New lines are to be placed allowing for enhanced drainage across the school yard.

With additional subdrainage outlets multiple benefits can be realized:

- The main infiltration rain garden could be reduced in size.
- The new vegetated swale on the east side acts as a catchment basin for surface water making its way down the slope. This allows the sports field to be enlarged.
- A subdrain installed in the sandpit can prevent stagnation, enhance the quality of sand play and allow for future water play.
- The proposed roof-fed 'dry creek infiltration trench' designed for play, could be smaller and not have to run the entire length of the school yard.

DESIRED OUTCOMES:

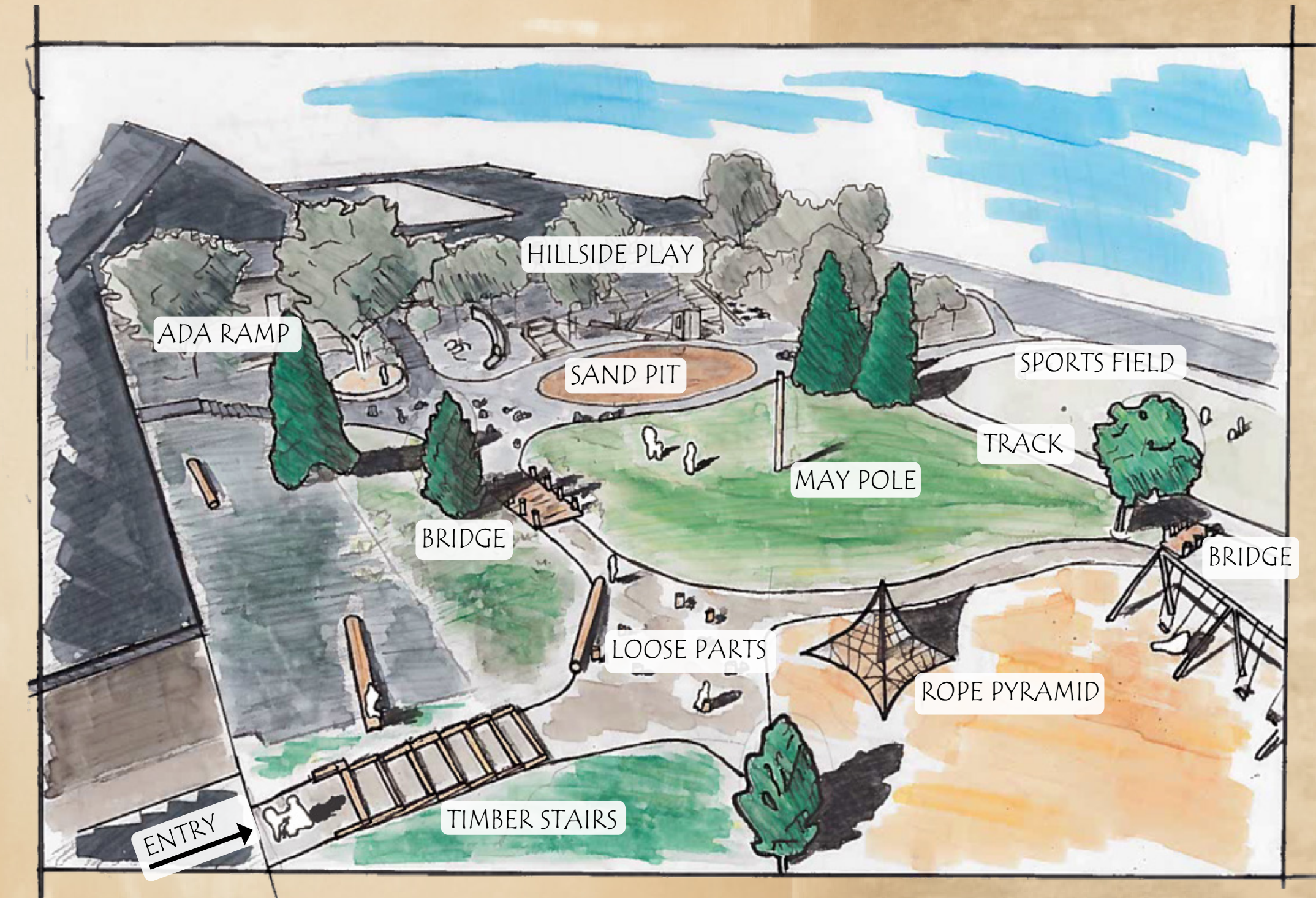
- ◇ MAINTAIN 'OPEN FEELING
- ◇ INCREASE DRAINAGE
- ◇ EXPAND SPORTS FIELD
- ◇ ALLOW FOR WATER PLAY
- ◇ BETTER SANDPIT
- ◇ NATURE PLAY
- ◇ CONNECT PLAY ISLANDS
- ◇ ADA ACCESSABILITY



DESIGN SECTION III.

III. PERSPECTIVES: 'The Layout'

I want to start off by showing you this perspective, which gives you a feel for the layout. The perspective is looking towards the northwest across the site. You can see the timber steps framing the entry. The circulation spills out to a loose parts area, both paths, to the left and right lead to a bridge crossing. The rope pyramid addition and the expansion of the wood fiber surfacing area are visible on the right. In the background, you can see the defined perimeter of a turf field and track, and a hint of the rest of the site like the hillside play area and sandpit.



TWIN MOTION OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON VELLUM

III. PLANS: 'School Yard Elements'

General Improvements

- 1 PAVED UNIVERSAL ACCESS PATH (ADA)
- 2 CRUSHED ROCK PATH (ADA)
- 3 TIMBER STEPS ACCESS
- 4 PROPOSED SUBDRAIN OUTLET

Sports Field

- 5 TURF SURFACING
- 6 3 LANE SPORTS TRACK
- 7 SMALL BENCH SEATING

Play & Explore

- 8 'DRY CREEK' WITH BALANCE LOGS + BOULDER STEPPERS
- 9 PROPOSED ROOF FED RAINWATER INLET
- 10 ROPE PYRAMID CLIMBER
- 11 BRIDGE OVER DRAINAGE BASIN
- 12 BOULDER STEPPERS
- 13 BOULDERS
- 14 EXPANDED SAND PLAY
- 15 'LOOSE PARTS'
- 16 WATER PUMP

Let's go through the school yard design, starting with the general improvements. A paved path (1) creates a primary circulation and connects the main access points. A crushed rock path (2) creates a secondary circulation, connects the islands of play, this path is accessible by code. Those timber steps (3) allow for a more convenient access down into the school yard from the hardscape play area. An enlarged sports field (5) with a 3-lane sports track (6) around a future scenario artificial turf sports field. In the corner is a designated hang out location with small bench seating (7). The dry creek (8) with balance logs and boulder steppers is designed as an infiltration trench with a flagstone paver surface. It is fed from the roof's diverted downspout (9). Two small bridges (11) serve the circulation and support the function of the drainage areas as well as add a playful touch to the school yard. Boulder steppers (12) are placed in the swales so Hobbits can hop from boulder to boulder. There are also boulder hang out spaces(13). The sand play area is expanded (14) and now contained by the path. Loose parts (15), are to be included for the water play, sand pit and gravel surface areas. And a simple water hand pump (16) will allow for water play. In the following slides we will take a closer look at the Hillside Play Area (17) and the ADA Ramp (19).W

17 Hillside Play Area

18 TRAIL

19 ADA Ramp



Let me remind you that the main design challenge was to stabilize the hillside and allow for play. Did I accomplish that? Well, I have some proposals to tackle the problem, but those pesky hobbits you know what happens if they keep walking on the slope...

I propose a tube slide at the top of the stairs (1), this creates a fun entrance opportunity. The post and net climbing fort is placed where there is a gap in the tree canopy(2) and directly on top of the main desire paths. The log jam (3) and logs on contour (4) help to stabilize the hillside and create nature play opportunities. An extra boulder scramble compliments the tube slide(7). Furthermore, I've placed a few more black oaks (9) on this hillside to compliment the existing ones(8). The expanded sand pit area is enclosed by the ADA path(16 +17). I propose a concrete curb to contain the sand and encourage older kids not to run through the sand pit(12). There are breaks in the curbing every 15' to allow easy access in and out(13). You can see the proposed layout of the water hand pump area (15) and boulder steppers in the swale (18).

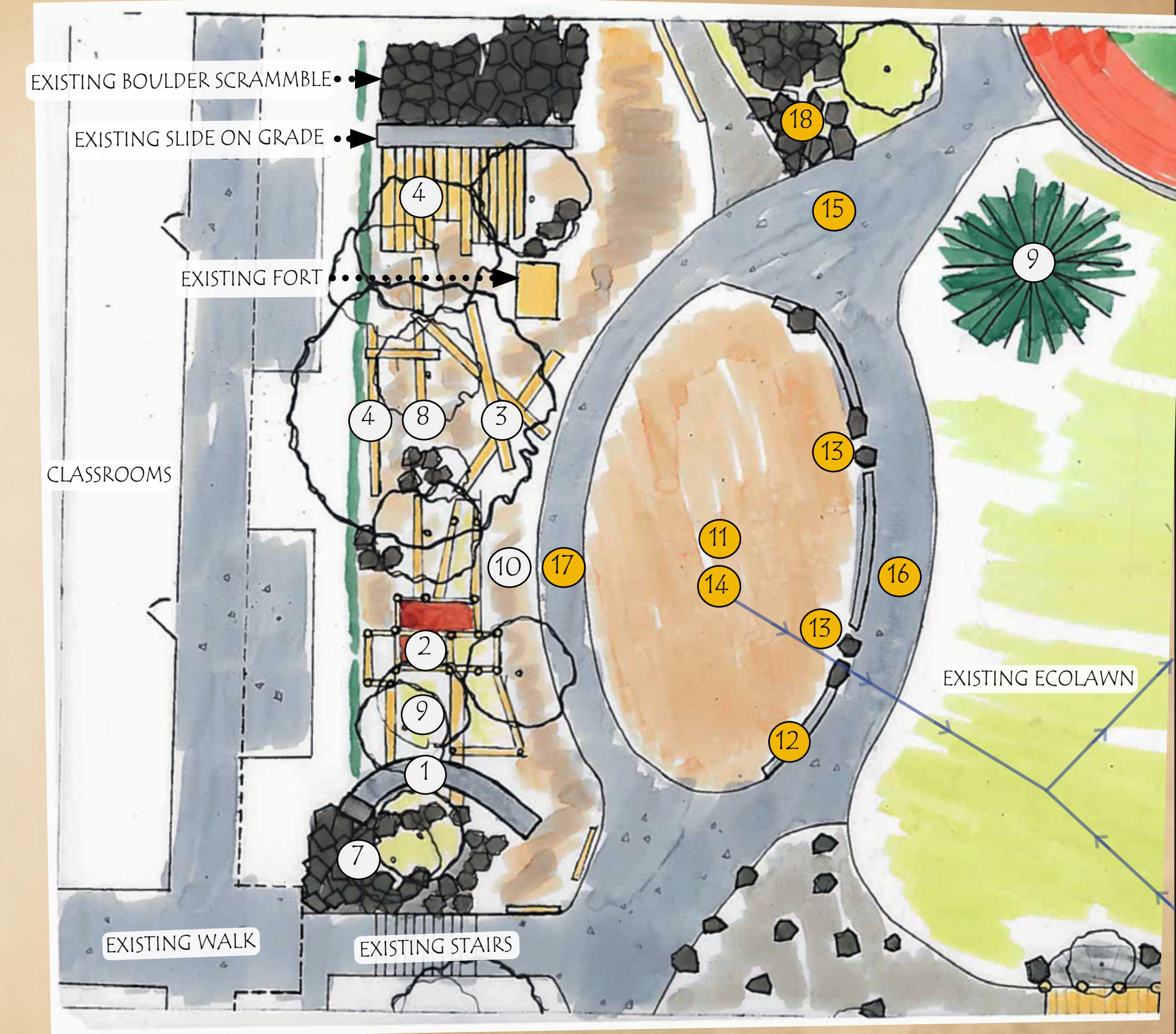
III. PLANS: 'The Hillside Play Area + Sand Pit'

Stabilization & Play

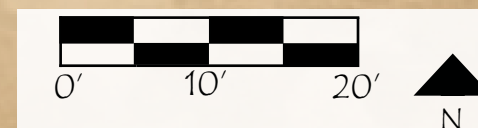
- ① PROPOSED TUBE SLIDE
- ② POST + NET CLIMBING FORT
- ③ LOG JAM
- ④ LOGS ON CONTOUR
- ⑦ BOULDER SCRAMMBLE
- ⑧ EXISTING TREES
- ⑨ NEW TREES
- ⑩ WOOD MULCH SURFACING

Play & Explore

- ⑪ EXPANDED SAND PIT AREA
- ⑫ CONCRETE CURB WITH ACCENT BOULDERS
- ⑬ ACCESS GAP
- ⑭ SUBDRAINAGE
- ⑮ WATER HAND PUMP
- ⑯ ADA PATH 6.5' W
- ⑰ ADA PATH 4' W
- ⑱ BOULDER STEPPERS



AUTOCAD OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON VELLUM



Let me remind you of the precedent for using logs a long the hillside.

III. PRECEDENT: 'Kid On Log Jam'



GREENWORKS



EARTHSCAPES



EARTHSCAPES

This is my take on the hillside area for the village school. The goal with this rendering style was to add a human touch and to leave room for human interpretation. These renders should allow and encourage conversation between the stakeholders, including the students. If I showed perfect 3D twin motion renders the aesthetic wouldn't match my narrative which is still an ongoing conversation.

Perfect 3d renders can imply a finished design. I've been using the term 'log jam' which is trademarked, let's break it down more. The 'climber log' is a log 16 inches to 2.5 feet above grade. Earthscapes standard for a climber log has three- points of contact. However, this is not required for a 4 foot fall allowance. Logs on contour are defined as a balance log, if they 16 inches or less above grade. A design goal was to frame the hillside with 'balance logs' to make pockets for woodchips, the woodchips provide some cushion from falls and help to reduce erosion by covering the bare earth.

Another goal of mine was to try and convince the kids the ground is hot lava. Because, if the ground is hot lava, you don't want to touch the ground. Perhaps then you would traverse via an alternative method. I show the existing fort in my renders as a reference point. However, later I learned from my interaction with the 5th graders in Merrily's class that the kids really would like a new fort.

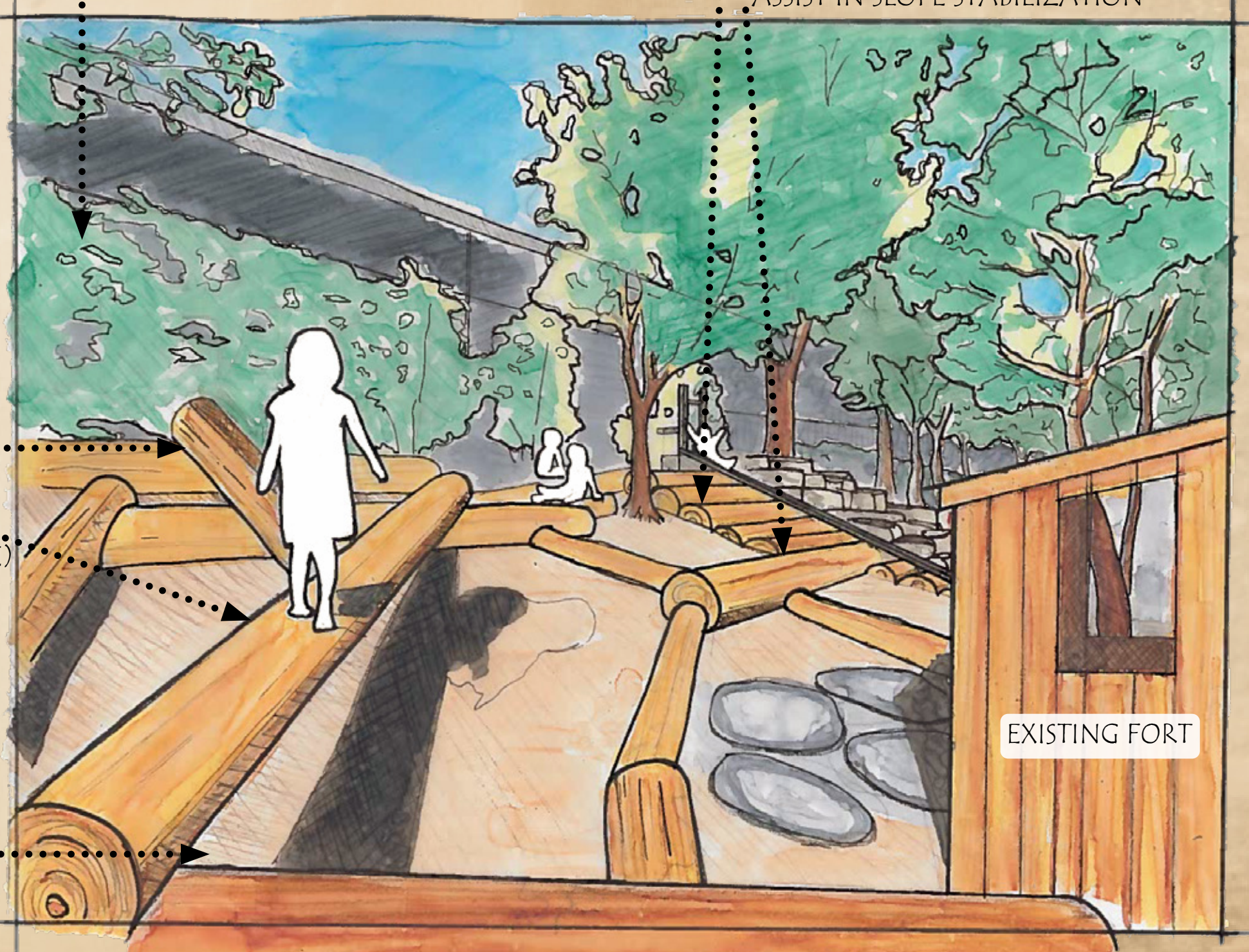


CLIMBER LOGS
LOCUST, CEDAR OR OAK
2.5' MAX. ABOVE GRADE (4' FALL ALLOWANCE)
16-18"+ DIA PEEELED, SANDED, AND STAINED
(CONSIDER ROPES ON SHALLOW ANGLES FOR 3 POINTS OF CONTACT)

HOBBIT PASSAGE
18"-2" CLEARANCE
WOOD MULCH SAFETY SURFACING

EXISTING GLOSSY PRIVET HEDGE
LIGUSTRUM LUCIDUM
PRUNED BACK TO STIMULATE REGROWTH

BALANCE LOGS ON CONTOUR
SET ON CRUSHED ROCK BASE
NO MORE THAN 16" ABOVE GRADE
ASSIST IN SLOPE STABILIZATION



TWINMOTION OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON VELLUM

III. PERSPECTIVES: 'Post + Net Climbing Fort'

I anticipate this post and net climbing structure would be a type of play fort. In this perspective you can get a feel for the multifunctional use of this structure. With the passage underneath, it was my goal that the younger children can have an area where they can play and not be overran by the bigger kids. Both age groups can share the space.

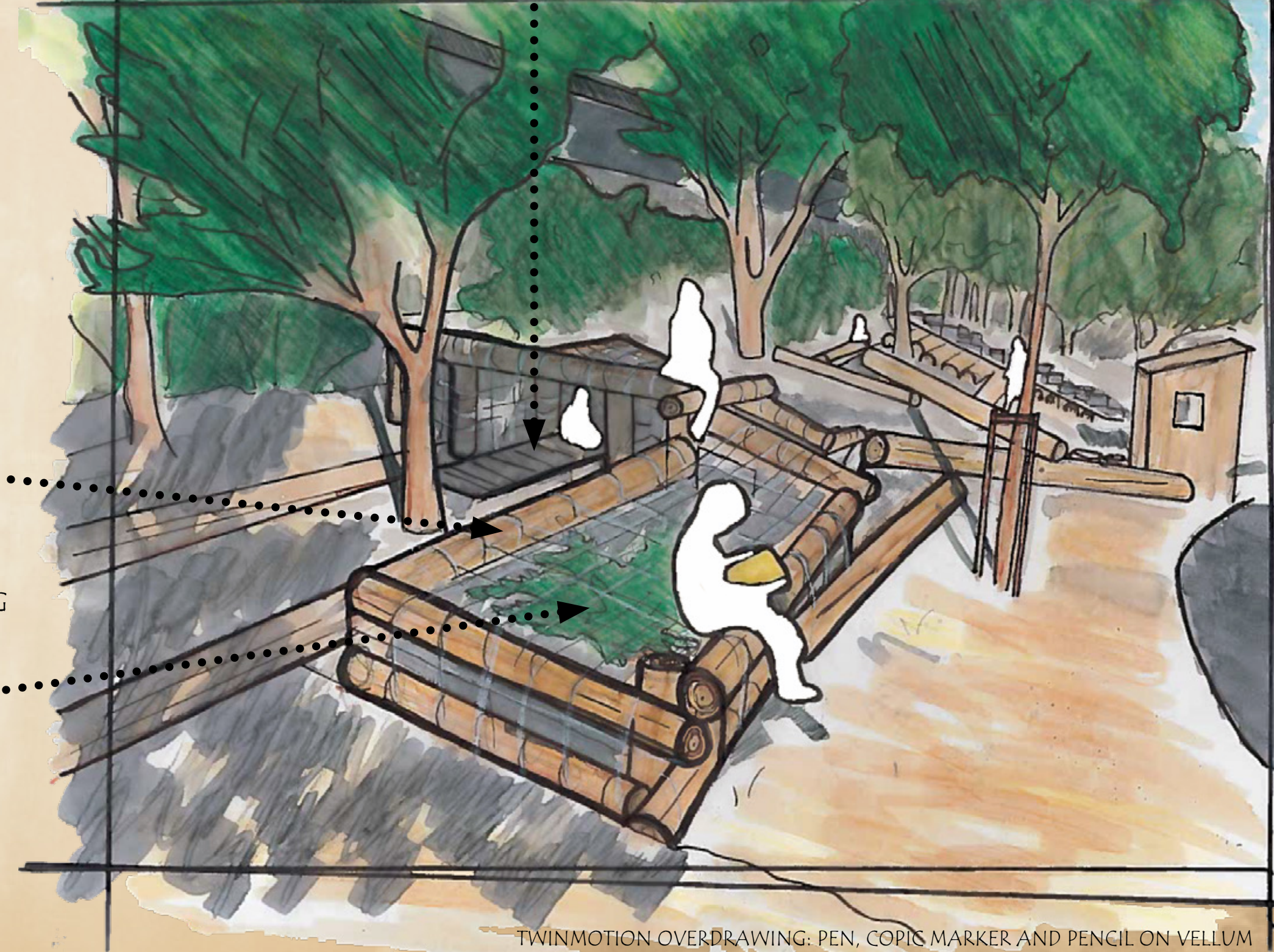
A goal of mine was to address the safety concern of enclosures while still creating a horizontal crawl through for the hobbits. The passage underneath is open to the elements. It has a surface of marine grade plywood with batten tread. The tread is uncomfortable to lie on which helps to prevent unwanted trespassers sleeping here overnight. Even with netting over the structure, sight lines and lighting should be maintained.



CLIMBING STRUCTURE
12-16' DIAMETER LOCUST, CEDAR OR OAK
PEELED, SANDED, AND STAINED-
WITH STEEL CORE PLAYGROUND NETTING

GROUND COVER PLANTS UNDERNEATH

• HORIZONTAL HOBBIT PASSAGES
• 2-3' DIAMETER ACCESS WITH BATTEN TREAD SURFACING
• TREAD SURFACING IS UNCOMFORTABLE + PREVENTS EROSION



TWINMOTION OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON VELLUM

There are a few different heights of platforms from four feet at the highest to two feet at the lowest, this is enough room for ferns or other ground cover plants underneath the structure.



III. PERSPECTIVES: 'Contemplation'



TWINMOTION OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON TRACE

III. PRECEDENT: 'Water Play'

It seems appropriate that the school might start off with a simple water pump. But these precedents from Learning Landscapes Design show how more experiential water play could be integrated onto the school yard.



'WATER PLAY LOOSE PARTS'



Learning
Landscapes

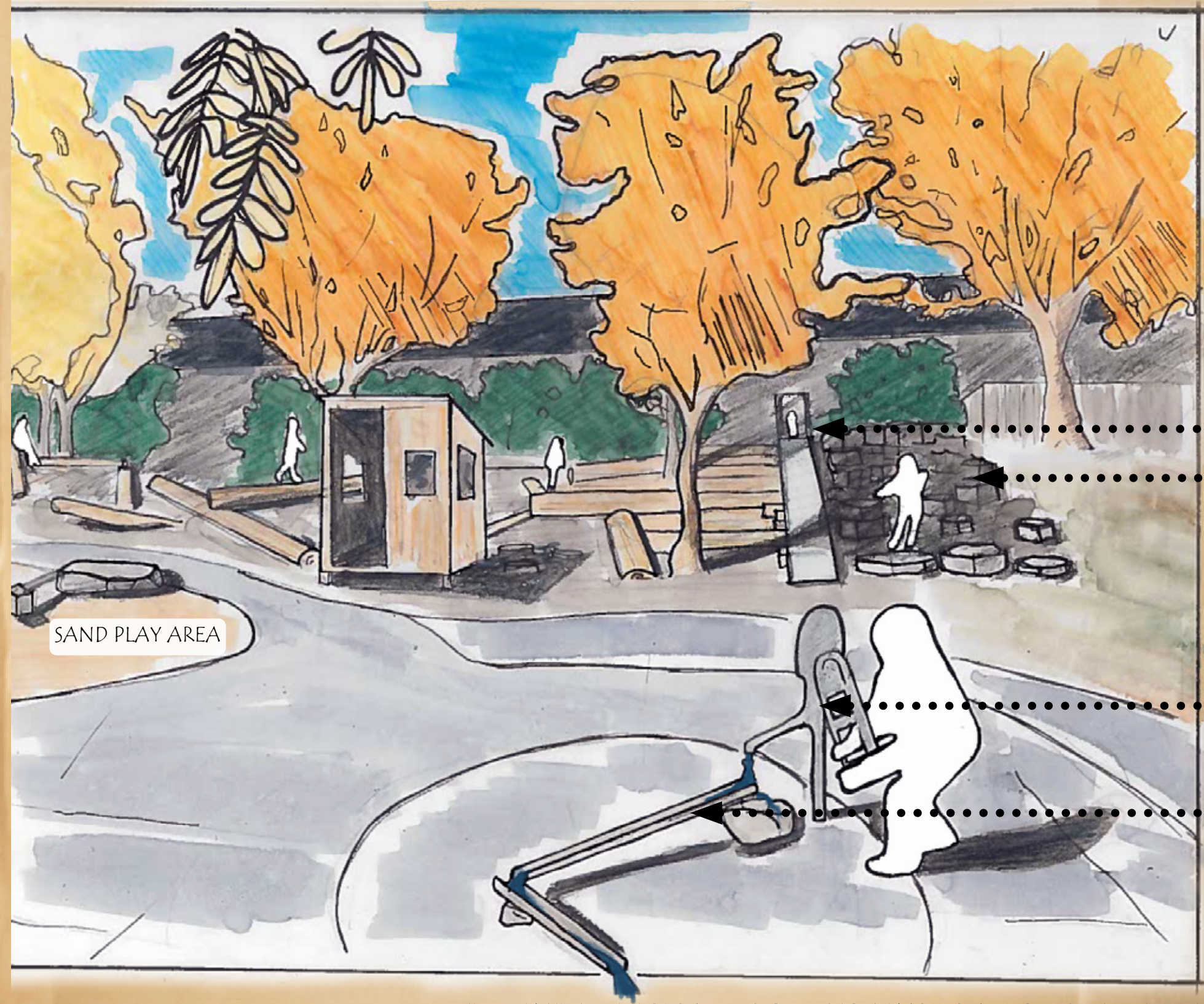


'WATER PLAY TABLES'



A simple hand pump could be locked by the staff when not in use and the kids will enjoy the manual exercise. With the water play in this location the children will have some interesting options. Water could be either directed towards the existing rain garden or into the sandpit. With a new subdrain in the sand pit the water will drain and it won't become stagnant or muddy.

III. PERSPECTIVES: 'Water Play In Fall'



TWINMOTION OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON VELLUM

The concept of loose parts would support the children's imaginative play without defining the space too much. In this perspective I am showing the log rounds on crushed gravel at the bottom of the timber stairs. Log rounds are to be removed and replaced once a year by an arborist. This sort of maintenance is required, and it would be a great addition to the school yard. The loose parts support and foster imaginative play without rigid programming. The log rounds are modular and moveable. It could be an outdoor classroom if the rounds were placed in a circle, or they could be placed as a circuit to avoid hot lava. A balance log was placed here with the implied purpose that it would frame the space and be used as a simple bench or a balance beam.

III. PERSPECTIVES: 'Loose Stumps'



BALANCE LOG

18" DIAMETER LOCUST, CEDAR OR OAK
PEELED, SANDED, AND STAINED
PLACED FOR USE AS A SEAT

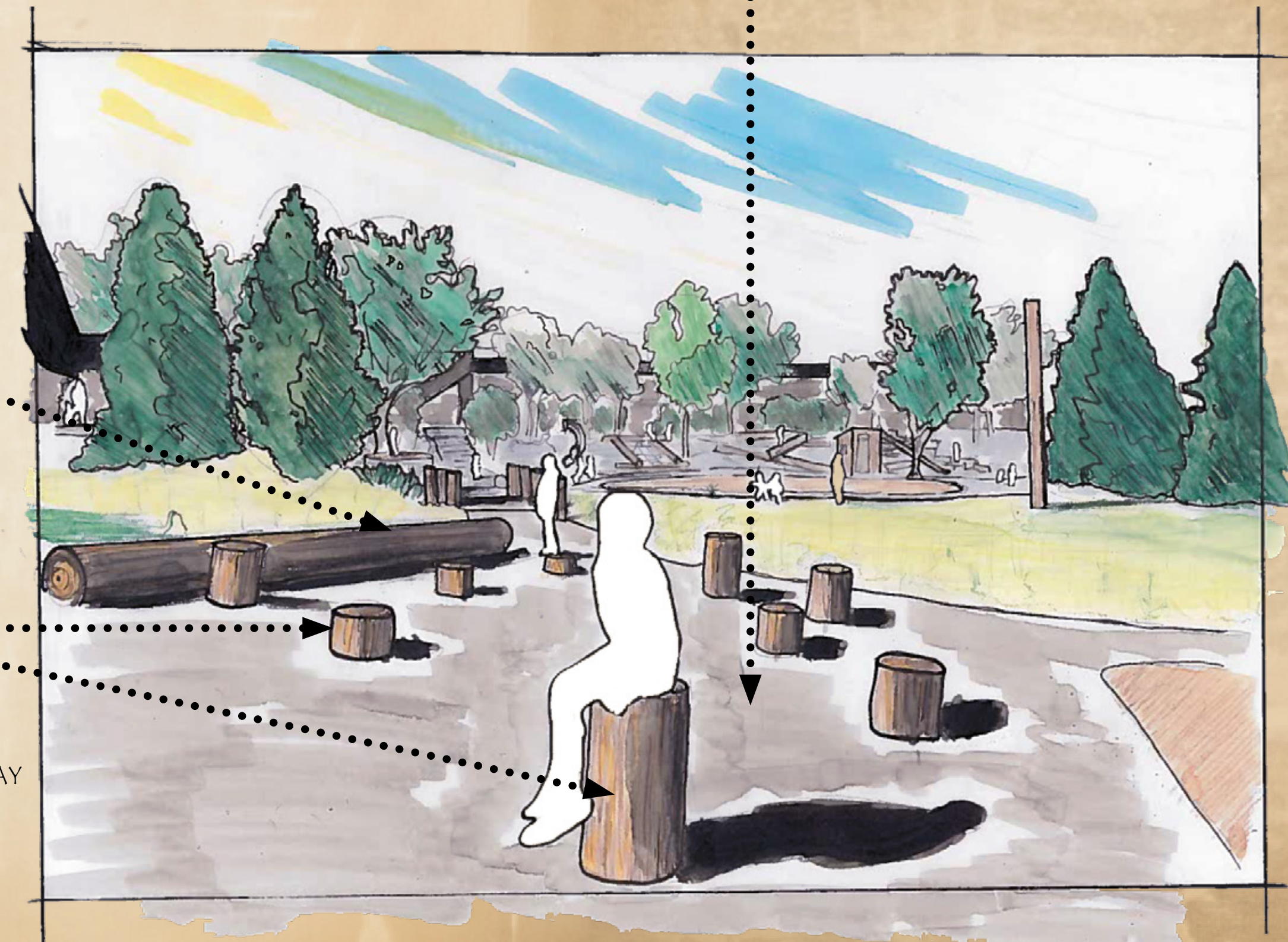
LOOSE LOG ROUNDS

18"-24" DIA. 1.5-2.5' LONG
REMOVED AND REPLACED ANNUALLY
CONTRIBUTES TOWARD IMAGINATIVE PLAY

"WE SHOULDN'T ALWAYS DICTATE HOW THE STUDENTS PLAY."

-A STAKEHOLDER

CRUSHED ROCK SURFACE



Finally, we've come back to the ADA ramp. Which is still an ongoing process. As a student I was able to distil from a messy feedback process and come up with this refined proposal. My proposal includes: A 5% sloped, poured in place concrete path(1) that connects the existing walk at the top of the slope to the school yard at the bottom of ramp, it navigates a seven foot elevation difference. Boulder scrambles (2) serve as a retaining element and to create more interesting play features for the children. Trench drains (3) will be most likely be required. I provide a small bench seating area (4) at one landing and the other acts as a base camp to the boulder scramble. There is the crushed rock surface (5) with boulders again. And if we are to keep the tree I propose a wooden deck (6) over the critical root zone of the existing black oak with the goal to create a variety of interesting elements for the children to play on.

III. ADA RAMP: ‘An Ongoing Project’

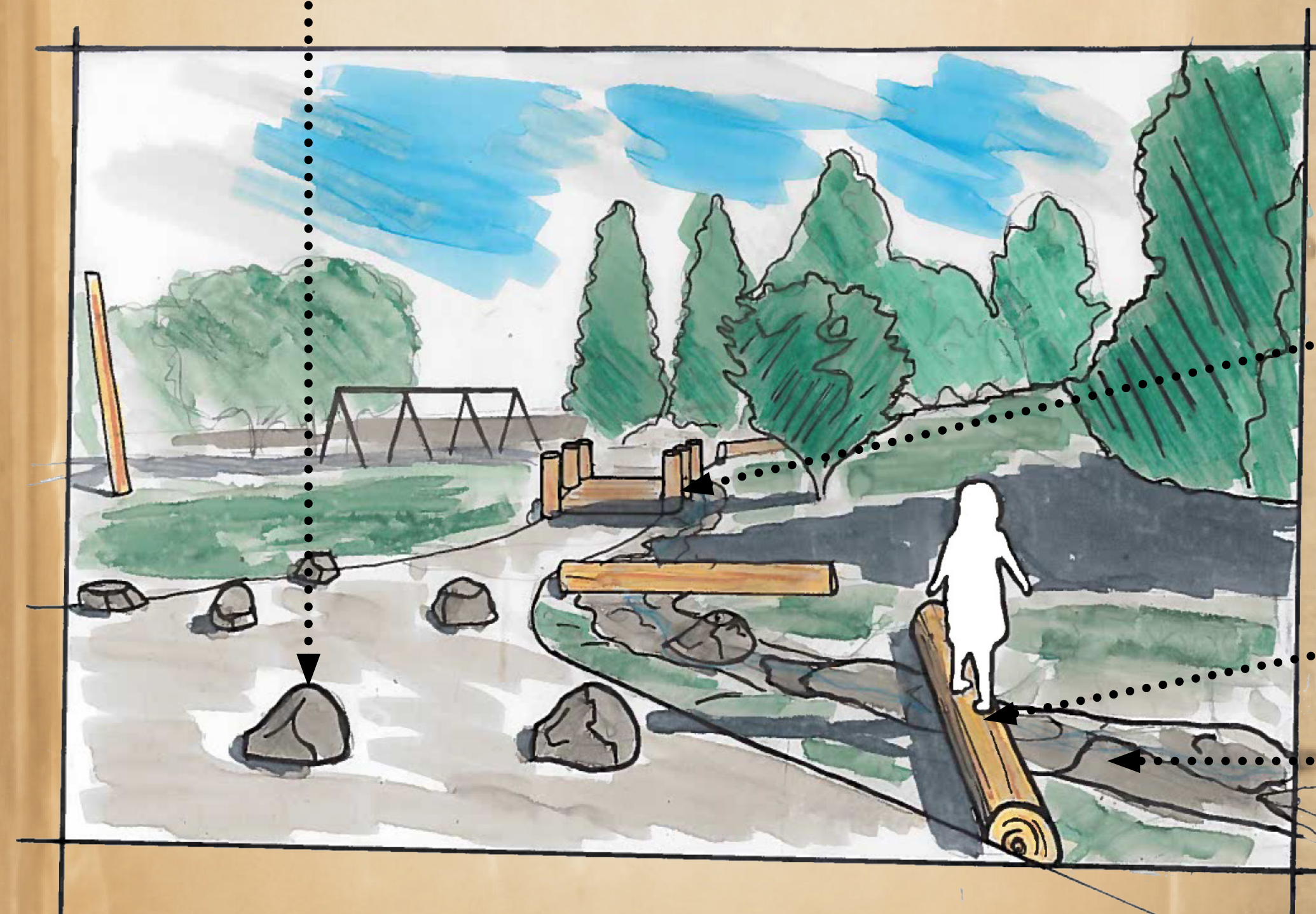
(GIFF TO TAKE ADA RAMP TO 100% CD STARTING JUNE)



This moment shows the multifunctionality of the proposed 'dry creek'. Including the cute bridge moment. The existing swings are seen in the background. The 'dry creek' is designed as an infiltration trench for play. It's fed by clean enough rainwater from the school's roof. A balance log is placed over the feature in two spots along with boulder steppers to create multiple 'nature play' options. I propose the 'dry creek' runs underneath the bridge, onto the other side where it would disappear into a subdrain outlet. The 'dry creek' is constructed of drain rock with a flagstone surface, stormwater will only pool up on the surface when it's raining cats and dogs. This perspective also gives one a sense of the boulders on a crushed rock surface. The two-three foot diameter boulders are placed about three-five feet apart. This setting creates a outdoor room where kids will sit, play or hang out and it also gently funnels the circulation towards the bridge crossing....or kids will just bolt across the lawn.

III. PERSPECTIVES: 'Dry Creek on a Dry Day'

- BOULDERS
- 2'-3' DIAMETER, SPACED 3'-5' APART
- SET ON A CRUSHED ROCK SURFACE



TWINMOTION OVERDRAWING: PEN, COPIC MARKER AND PENCIL ON VELLUM



- WOODEN BRIDGE
- 6' WIDE, CEDAR 2X6 PLANK SURFACE
- TIMBER POST WITH ROPE RAILING
- SWALE DRAINAGE PASSES UNDERNEATH
- BALANCE LOG
- 'DRY CREEK'
- INFILTRATION TRENCH WITH SUBDRAIN OUTLET
- SAND SET FLAGSTONE PAVER SURFACE

In this view of the ADA ramp the existing glossy privet hedge is removed, opening up the view and inviting you to take the ramp down to the school yard. The ramp has easy boulder scrambles instead of concrete retaining walls, which results in a good chunk of climbable surface. The boulder scramble is composed of two-three foot diameter boulders mortared together. I can already imagine hearing some kid say, 'race ya to the bottom' and one goes down the ADA ramp and another cuts across the scramble. The slope is five percent so no handrail is required. At the bottom you can see the wooden platform, positioned in order to protect the critical root zone of the existing black oak and to create more interesting places for hobbits.



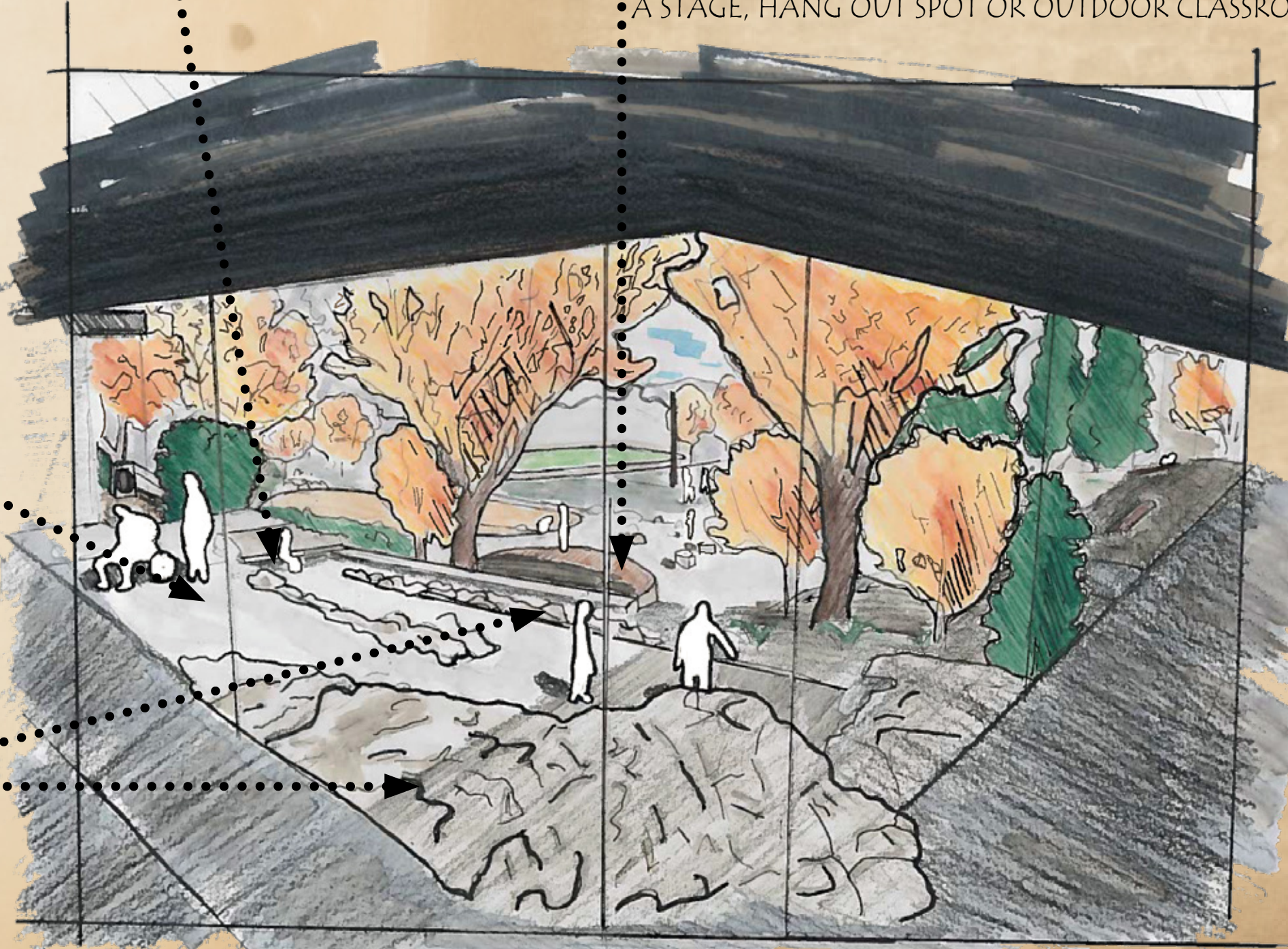
ADA ACCESS RAMP
5% SLOPE, 7' RISE
POURED IN PLACE CONCRETE

EASY BOULDER SCRAMMBLE
MORTARED BOULDERS 2-3' DIAMETER

III. PERSPECTIVES: 'Top of the Ramp'

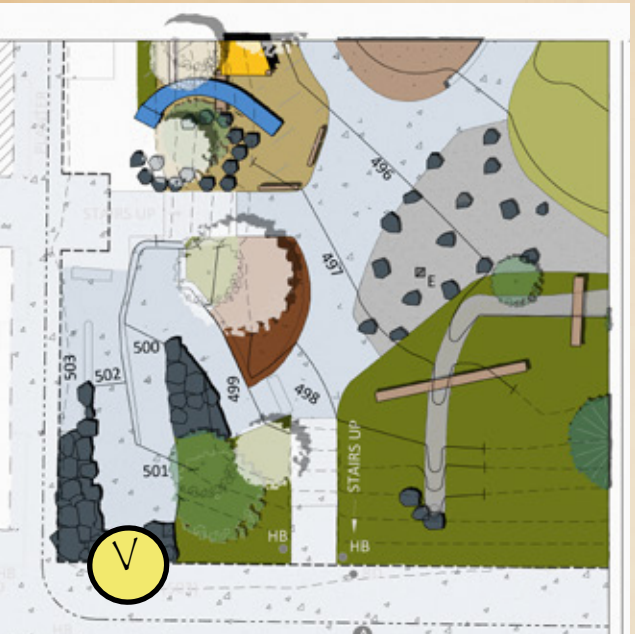
BENCH SEATING
LOCATED AT LANDING

WOODEN PLATFORM
PROTECTS CRITICAL ROOT ZONE OF EXISTING OAK
A STAGE, HANG OUT SPOT OR OUTDOOR CLASSROOM



III. PERSPECTIVES: 'Side of the Ramp'

This slightly unrefined perspective helps to give a sense of the side angle, you can see the landing areas that allow for impromptu hang out spots and how the top of the ramp connects with the existing covered walkway



EXISTING SURFACE
TOP OF LANDING IS FLUSH WITH EXISTING WALK

LANDING
WIDER AREA ALLOWS FOR HANG OUT SPACE
'BASE CAMP' FOR THE BOULDER SCRAMMBLE

LANDING
WIDER AREA WITH BENCH SEATING



A goal of mine throughout the project was to develop a practical and refined concept for the school yard and to practice working with a group in a more professional manner. I learned that when I engage with non-designers. For example, the feedback process can be rather messy, or hard to distill from. I wrestled throughout the process with how to include the shire as a material element. It was a goal to be inspired but I had to not take the inspiration literally, the practical safety concerns of enclosures within the school yard was one example. The Waldorf pedagogy guides the framework of using natural materials. The committee I worked with is careful and cautious not to overdevelop the school yard, yet the practical issues of drainage resulted in the serious consideration of an artificial turf sports field. Similarly, we could stabilize the hillside by covering it in astroturf, but that wouldn't be so natural.

As a student, this was a rich learning experience, I had great conversations with the committee and stakeholders, and I learned alot. The process was also lengthy, and it extended over the course of 6 months. Moving into the professional world I will need to be more concise and careful with my stakeholder engagement. And with any concept when you get to building it, we run into sticker shock and practical budget and code limitations, which I will face more of as I take the ADA ramp to 100% construction documentation in the coming weeks.

IV. REFLECTIONS: 'Things Learned From An Unexpected Journey'

INSPIRATIONAL PRINCIPALS VS. PRACTICAL DESIGN

Stakeholder Engagement

Hobbit Theme

Site Location

Waldorf & Natural Materials

Concept Design

Student Life

Messy Feedback Process

Enclosures & Safety Concerns

Hillside Stabilization

The Drainage Problem & Artificial Materials

Budget and Other Practical Limitations

Temporal Allowances

Thank you to everyone! Let's open it up for discussion now.

V. DISCUSSION: 'Time To Chat'

MANY THANKS TO ALL WHO SUPPORTED ME!

My bosses and mentors: Noah + Michelle



+ MOMMA LEDA

All of my cohort: Cameron, Jake,
Tristan, Basil, Katherine, Katie,
Caitlin, Tressa, Holly,
Ted, Mikalya, Phoebe,
Sarah G. Big Phil.

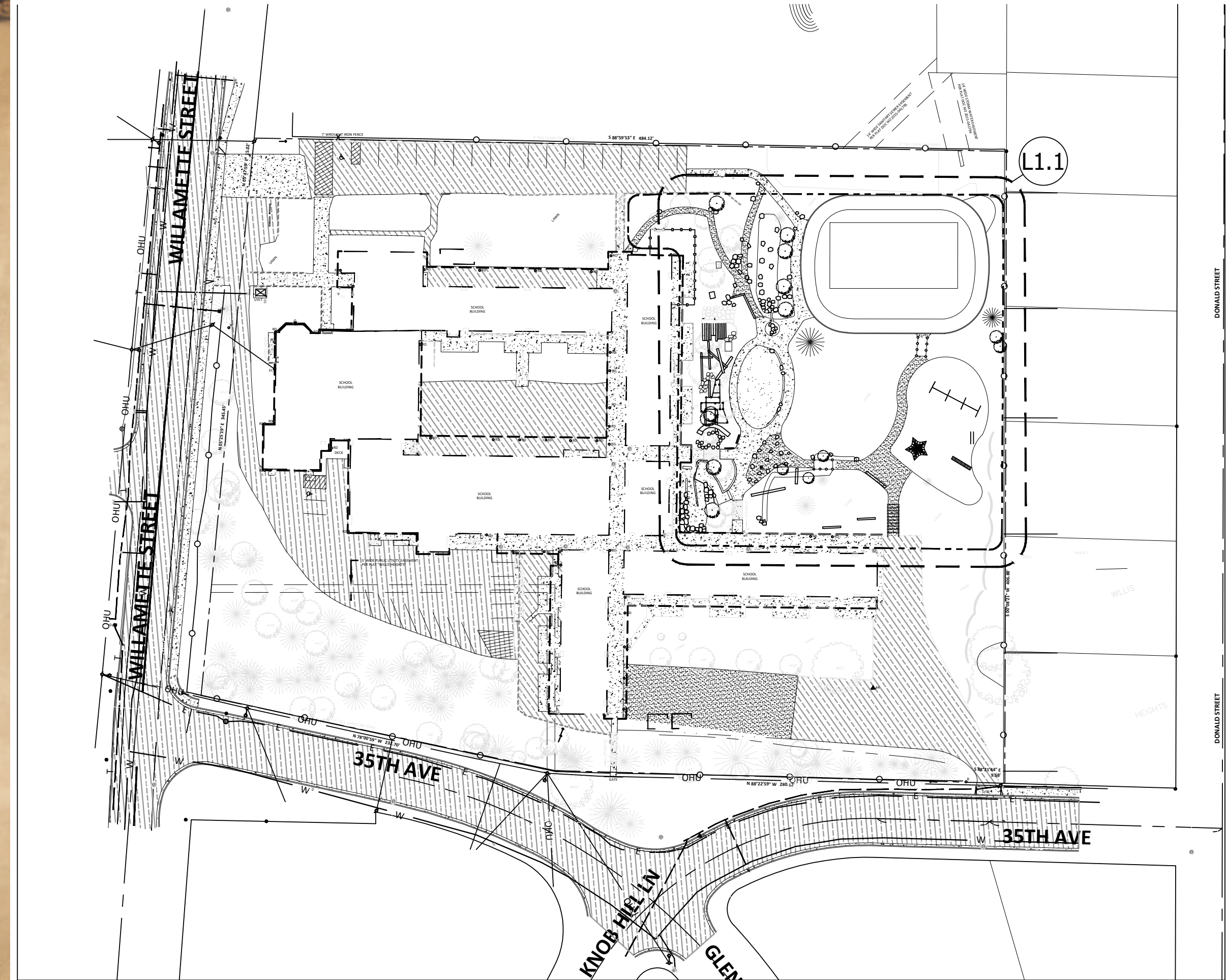
STAKE HOLDERS 'THE COMMITTEE', CARA, ANDY

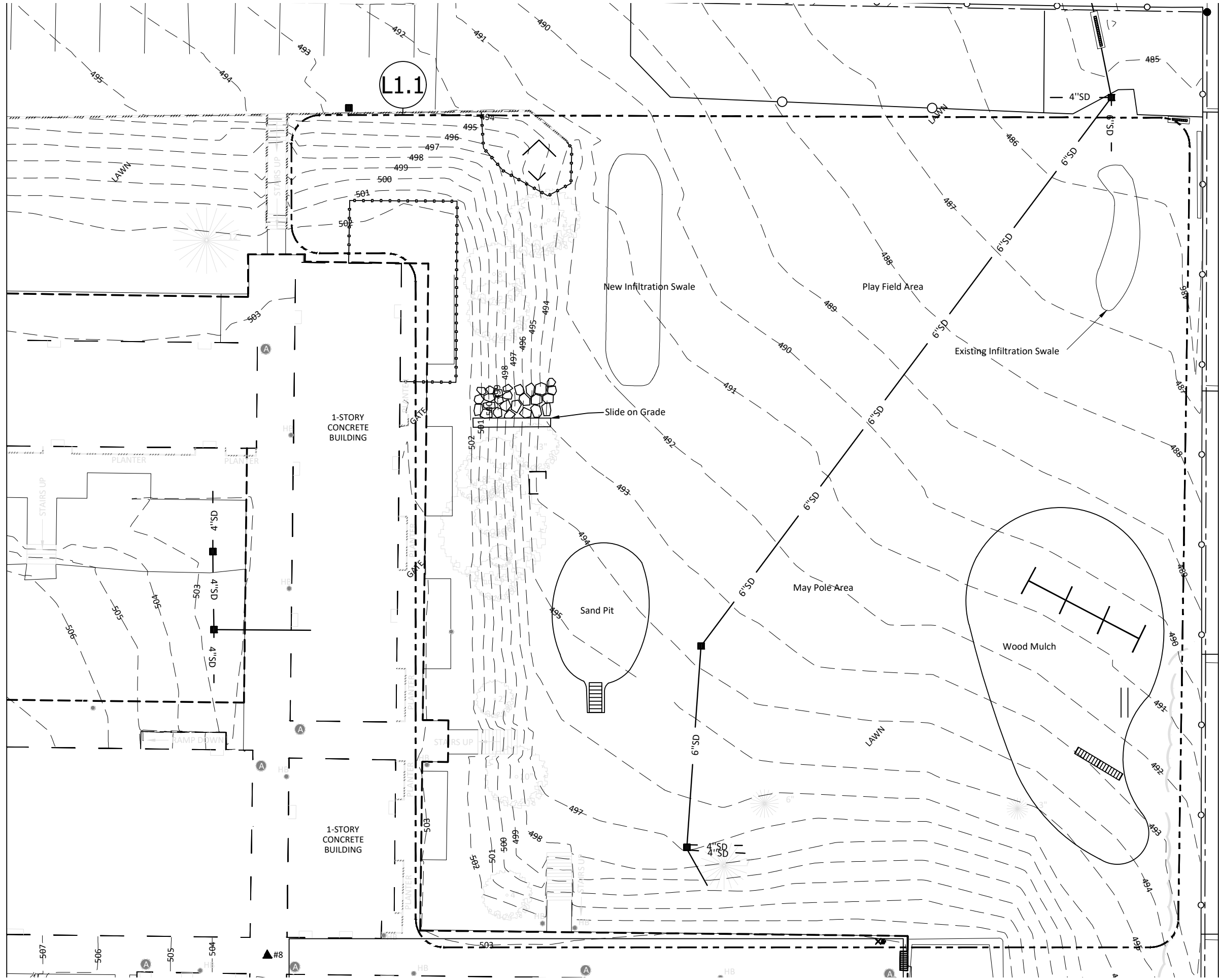
MERRILY'S 5TH GRADE CLASS

Every instructor I had..... Geffel, Arica, Rob,
Jigisha, DBB, IGNACIO, Mark, Marc, Ellee,
Ben, Jean, Joan, Yekang, Liska,
Kory, Pete, Sara...

VI. THE APPENDIX:

Twin Motion Exports





- LEGEND:**
- BUILDING OUTLINE WITH DOOR
 - CONCRETE SURFACE
 - ASPHALT SURFACE
 - WALL
 - BUILDING OVERHANG
 - CHAINLINK FENCE
 - WOODEN FENCE
 - ROD-IRON FENCE
 - CURB LINE
 - EDGE OF ASPHALT
 - RIGHT-OF-WAY LINE
 - EASEMENT LINE
 - LOT LINE
 - PROPERTY LINE
 - BRUSH LINE
 - ELECTRICAL LINE
 - DITCH CENTER LINE
 - STORM LINE
 - SANITARY SEWER LINE
 - WATER LINE
 - GAS LINE
 - OVERHEAD UTILITY LINES
 - BOLLARD
 - DRIVEWAY ENTRY
 - ROOF DRAIN
 - ELECTRICAL CABINET
 - ELECTRICAL METER
 - ELECTRICAL METER
 - GUY ANCHOR
 - OVERHEAD LIGHT
 - POWER POLE/OVERHEAD LIGHT
 - POWER POLE
 - GAS VALVE
 - GAS METER
 - WATER HOT/COLD STEAM MANHOLE
 - SANITARY MANHOLE WITH STRUCTURE
 - STORM MANHOLE WITH STRUCTURE
 - CLEAN OUT
 - AREA DRAIN
 - SANITARY/STORM STRUCTURE #
 - TELECOMMUNICATIONS MANHOLE
 - WATER VALVE
 - IRRIGATION CONTROL VALVE
 - FIRE HYDRANT
 - WATER METER
 - HOSE BIB
 - UNKNOWN UTILITY VAULT
 - DECIDUOUS TREE W/ (TAG NO.)
 - PERIMETER REPRESENTS DRIPLINE
 - CONIFEROUS TREE W/ (TAG NO.)
 - PERIMETER REPRESENTS DRIPLINE
 - PROJECT CONTROL POINT

NOTES:

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Master's Project

By Giffin Glastonbury

The Village School

L1.0

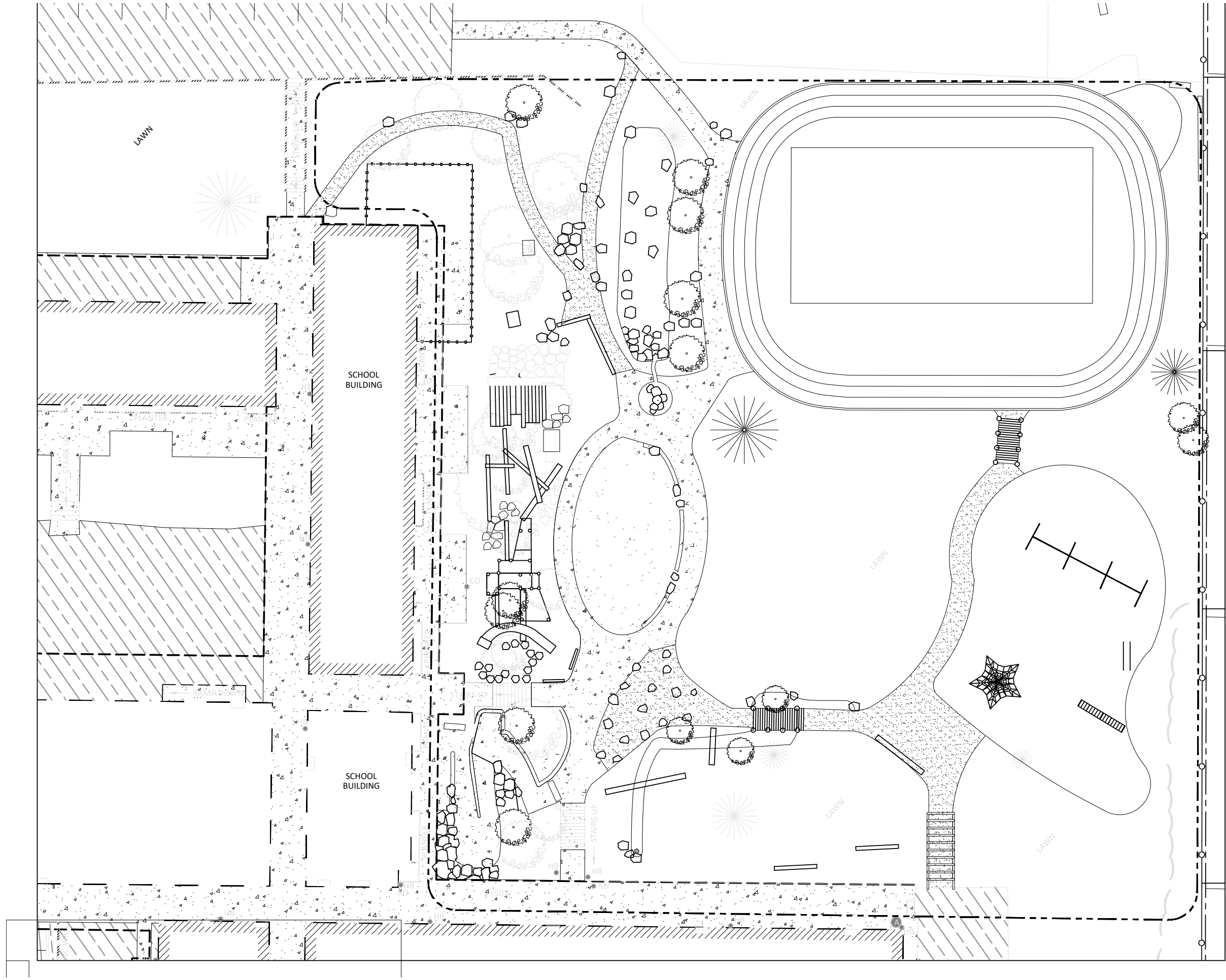
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Checked: K-DOG
Project #: 1234 A
Date: MM, DD, YYYY

PHASE
100% DD

SCALE
1"=25'

SHEET TITLE
SURVEY BASE

SHEET #
L1.0



- LEGEND:**
- BUILDING OUTLINE WITH DOOR
 - CONCRETE SURFACE
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The Village School Playground

L1.1

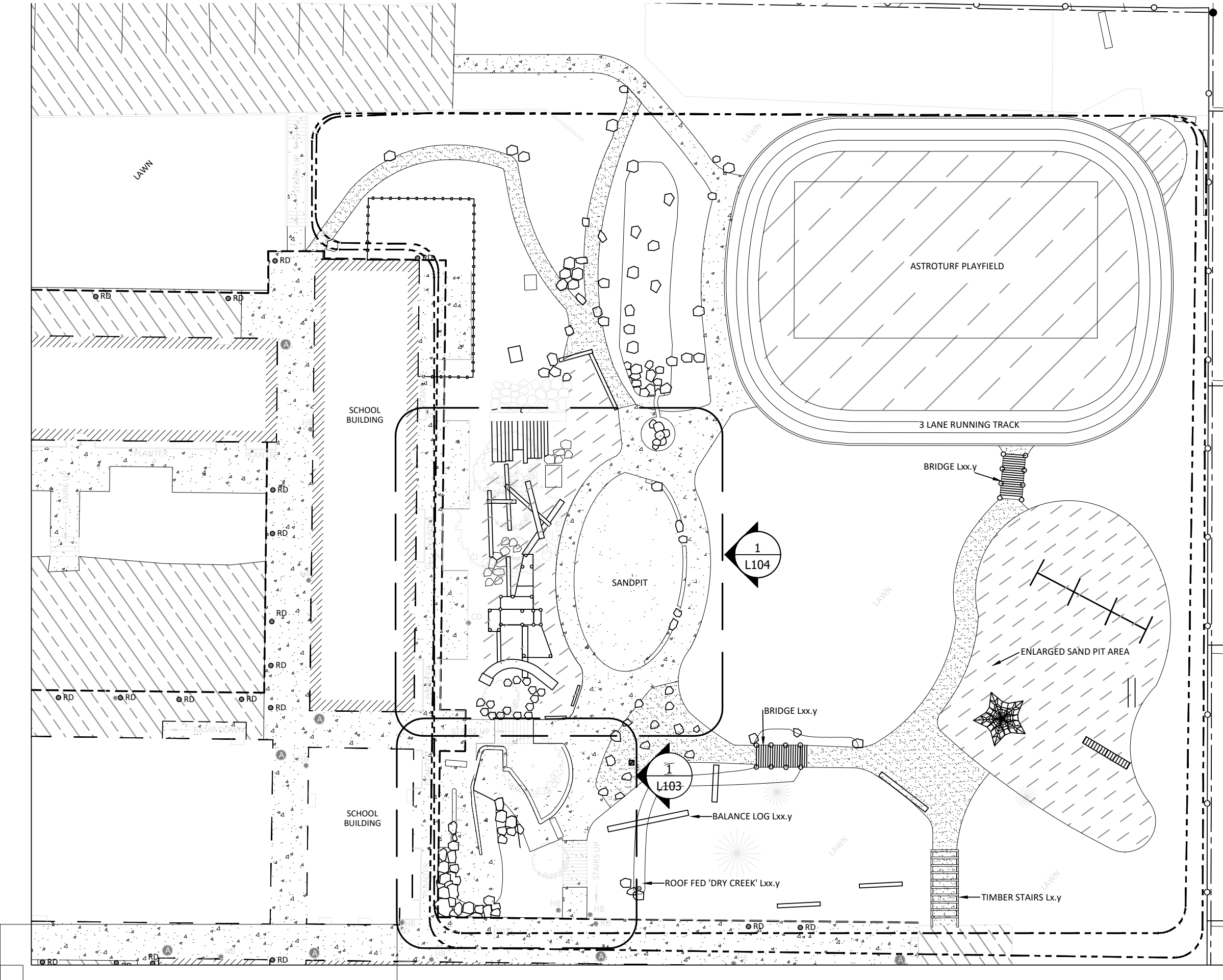
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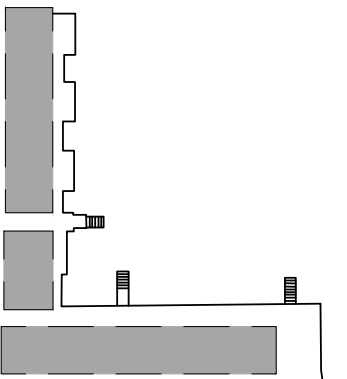
SHEET TITLE
SITE PLAN

SHEET #
L1.1



- LEGEND:
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 - CONCRETE SURFACE
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NOTES:



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The Village School Playground

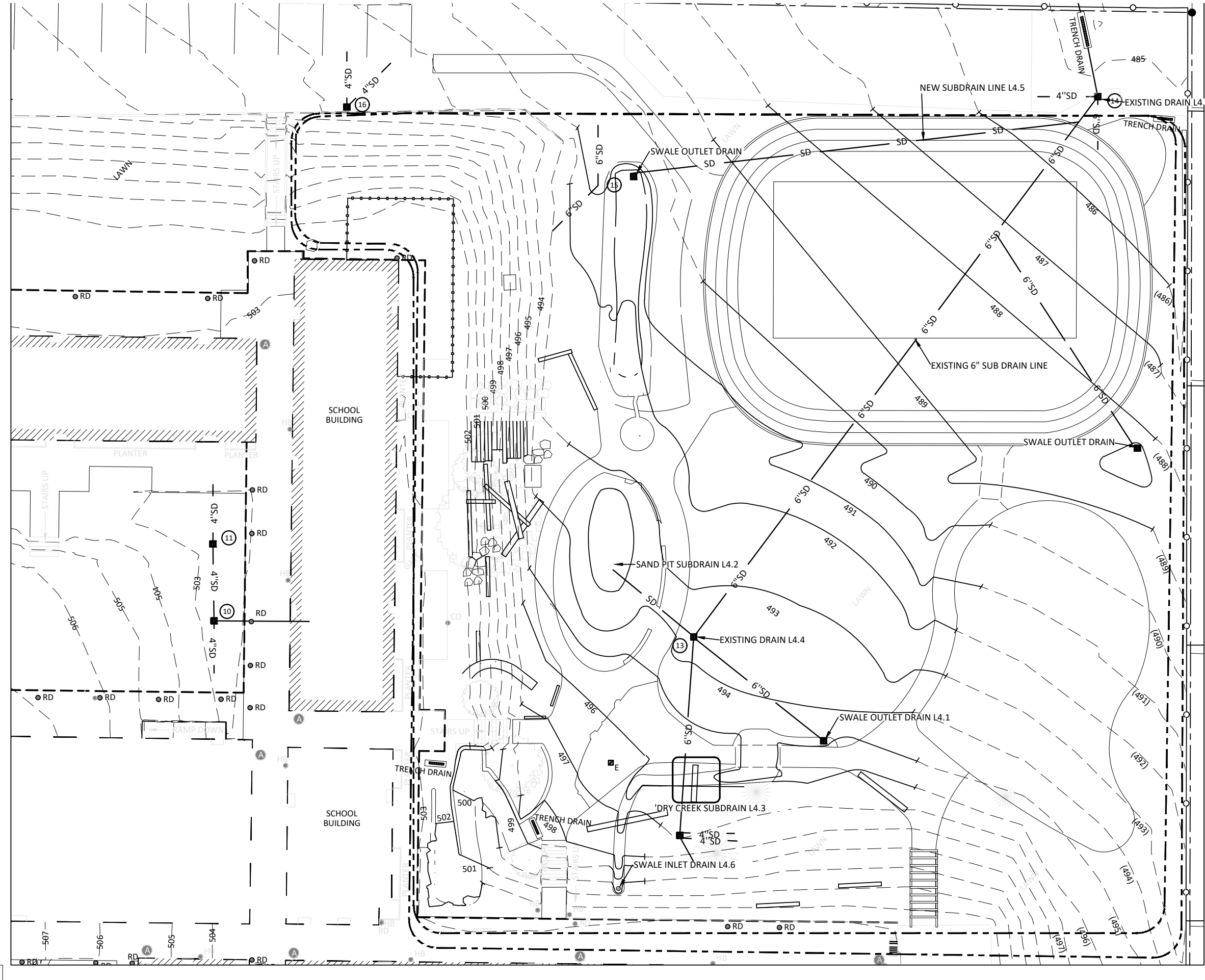
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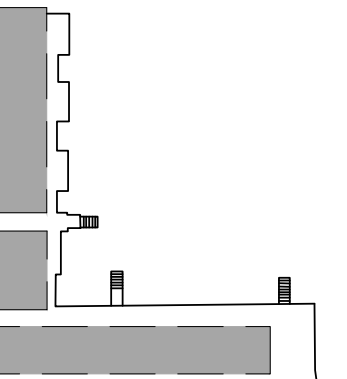
SHEET TITLE: MATERIALS PLAN

SHEET #: L2.0



- LEGEND:
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NOTES:



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The Village School Playground

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Checked: K-DOG
Project #: 1234 A
Date: 05, 09, 2024

PHASE: 100% DD

SCALE: 1"=25'

SHEET TITLE: GRADING + DRAINAGE PLAN

SHEET #: L4.0

The design boards on the following page were submitted in a team effort for the EPA Campus Stormwater Challenge 2024.

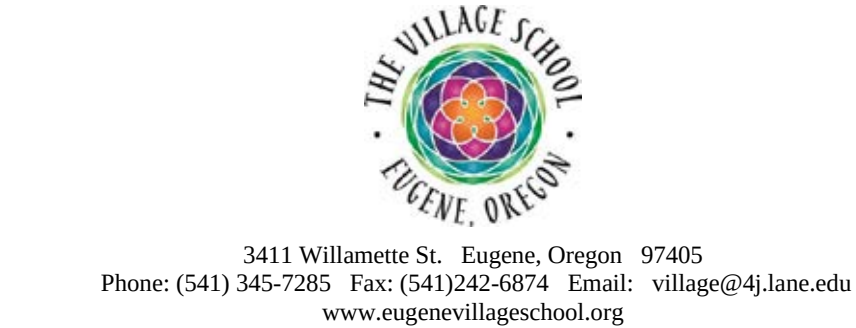
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May 1, 2024,

Re: Campus Rainworks Challenge 2024-Team 028

On behalf of the board and staff of The Village School in Eugene, I confirm that Team 028 has:

- extensively consulted with our Site Planning Committee and me as executive director of the Village School to develop a playground design which takes into account our school's master plan and our holistic, arts-inspired and nature-focused educational philosophy;
- met with our Site Planning Committee twice, and will meet again in the next few weeks;
- actively sought and reflected on feedback from our Committee, collectively from our staff's input at all-staff meetings, and individually from my input and reviews of draft plans;
- provided us with many alternative concepts to improve our playground and make water a more usable resource for play and natural habitat; and
- sought and gained the endorsement of our staff and Site Planning Committee for their final design.

Our school looks forward to opportunities to implement the concepts laid out in their final design.

Please let me know if you have any questions,

Sincerely,

Andy Peara
Executive Director

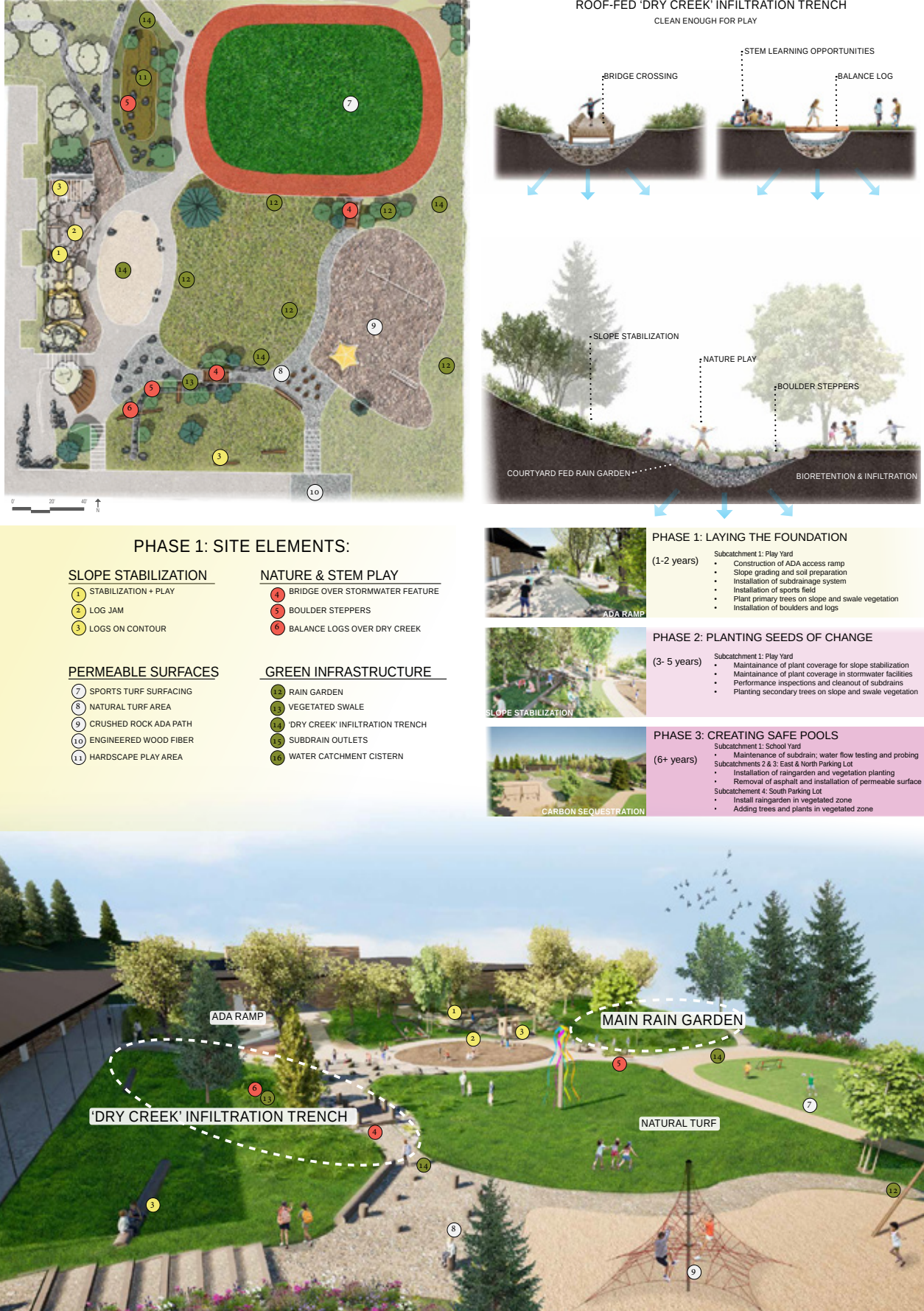
Rainy Days, Nature's Ways:

Regional Context & Stormwater Analysis at Eugene, Oregon



Rainy Days, Nature's Ways:

Embracing Stormwater & Play at The Village School, Eugene Oregon



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